


METROPOLITAN TORONTO AND REGION TRANSPORTATION STUDY

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CHOICES FOR A GROWING REGION

Prepared by the
Department of Municipal Affairs
Community Planning Branch



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DEPARTMENT OF URBAN & REGIONAL PLANNING

UNIVERSITY OF TORONTO

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DEPARTMENT OF MUNICIPAL AFFAIRS

CHOICES FOR A GROWING REGION

A study of the emerging development pattern
and its comparison with alternative concepts.

Hon. W. Darcy McKeough

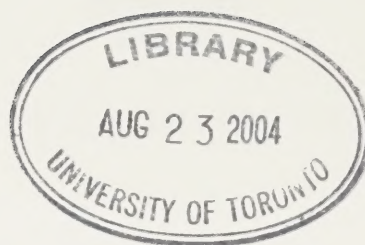
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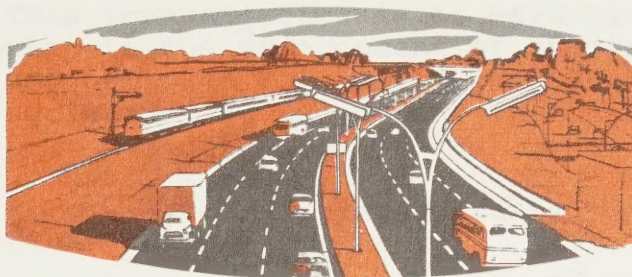




METROPOLITAN TORONTO AND REGION TRANSPORTATION STUDY

Telephone
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November, 1967

The Hon. Irwin Haskett,
Chairman,
Executive Committee,
Metropolitan Toronto and Region
Transportation Study.

Dear Sir:

I have the pleasure of presenting the report "Choices for a Growing Region" prepared by the Community Planning Branch of the Department of Municipal Affairs. This is the second of a series of final reports of the Metropolitan Toronto and Region Transportation Study.

The material herein, was commissioned by the Committee. It was realized that MTARTS could not effectively advise on regional transportation needs without having a knowledge of the emerging development patterns within Metropolitan Toronto and surrounding region.

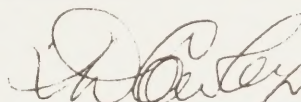
Consequently, these patterns are examined in this report. Current trends of growth were investigated, a number of "goals" were established and finally five developed concepts emerged as possibilities for the shape of the MTARTS region in the future.



ONTARIO
PROVINCE OF OPPORTUNITY

This investigation is an essential first step in the development of specific plans and policies to guide public and private decisions and investment in the region.

Respectfully submitted,



R.D. Cowley, P.Eng.,
Chairman,
Technical Advisory and
Coordinating Committee.

INTRODUCTION

The Metropolitan Toronto and Region Transportation Study (MTARTS) was instituted by the Province of Ontario to recommend plans, policies and administrative arrangements for transportation in the Toronto-centred region.

To undertake a program for this vast assignment, a special Study staff was appointed. A committee structure had to be developed representing all involved Ontario Government agencies, the Municipality of Metropolitan Toronto and the major transportation operators in the region such as the railways and transit authorities.

COMPONENTS OF STUDY

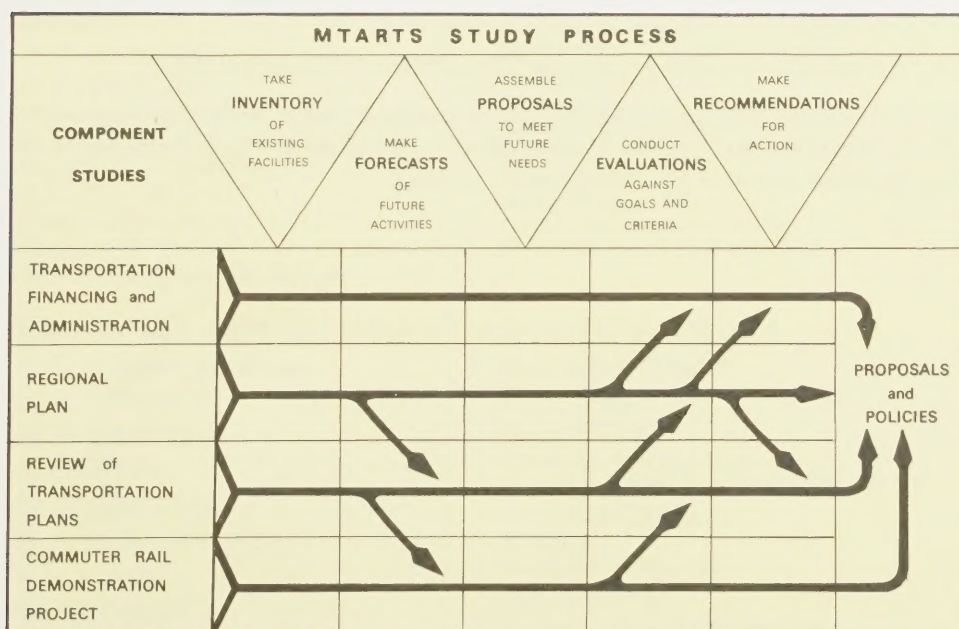
The scope and depth of the MTARTS program required that the most efficient use be made of the variety of assembled skills and facilities. Accordingly, the Study was organized into four components as described and illustrated diagrammatically here:

Transportation Financing and Administration — To determine arrangements for financing and organizing transportation services and facilities.

Regional Development Plan — To determine the emerging regional pattern; to consider the possibility of more desirable forms and patterns; and to assess the advantages of each.

Review of Transportation Plans — To determine future travel demand, evaluate transportation proposals, and investigate and recommend transportation modes and systems.

Commuter Rail Demonstration Project — To measure public acceptance of a form of service not hitherto available, and to evaluate its role and potential in the region.



REPORTING

Documenting results for each stage of these investigations required two types of reports: technical reports covering procedures and techniques and having limited distribution; and formal reports containing findings and recommendations for a wider audience. This is the second of the formal reports and deals with alternative regional development concepts. Subsequent reports will discuss their implications for transportation demand and supply.

ORGANIZATION

Direction of the overall Study is the responsibility of the Executive Committee assisted by the Technical Advisory and Coordinating Committee. Among the many project arms organized to review specific parts of the work is the Regional Development Subcommittee. This in turn is assisted by an advisory group of experts who have been asked to contribute their special skills and knowledge to the subcommittee's efforts.

The committee organization shown on the facing page testifies to the importance of inter-agency dependence for dealing with the intricate problems of regional growth. *Note that it lists only the membership of the two central committees and of the particular subcommittee and its advisory group.* This constitutes the MTARTS committee structure for just one part of the program — the regional development plan which is the subject of this report.

PREPARATION OF REPORT

The report and much of the research are the work of a staff group of the Community Planning Branch, Department of Municipal Affairs, assisted by Professor L. O. Gertler, M.A., University of Waterloo, who undertook the assignment as a member of Acres Research and Planning Limited.

The foundations for this phase — the working out of objectives and methods — were laid by the Regional Development Advisory Group. Their guidance and advice contributed substantially to the final results. In acknowledging their assistance, it should be understood that they are not responsible for the report or its conclusions.

Sole responsibility for this rests with the Department of Municipal Affairs.

Special thanks are also due the staffs of many planning boards in the region, particularly the Metropolitan Toronto Planning Board, as well as the Ontario Department of Mines which provided photo-mechanical services.

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THE SETTING

The region centred on Toronto has been taken as extending north to Barrie, west to Guelph and 100 miles along Lake Ontario from Hamilton to Bowmanville for a total of 3,200 square miles. Change and growth have been its keynotes. In 1951 the population was 1,695,000; in 1964, 2,800,000. In 1980 it will be in the neighbourhood of 4,000,000 and probably about 6,400,000 at the turn of this century.

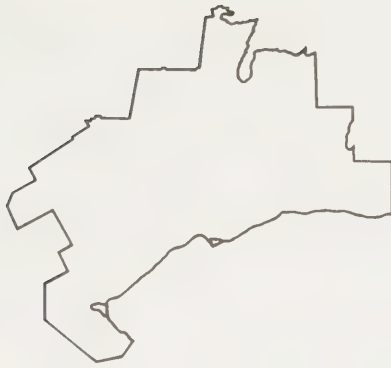


With such growth, the scale of urban settlement expands. The large city becomes a regional city; the strains of transportation intensify along with many other aspects of society. It becomes increasingly difficult for the regional city to perform its unique role — to provide an attractive and coherent environment for the development and advancement of its people. Crucial to this role is the maximizing of opportunities for a wide range of employments and pleasures.

This is the problem to which the Metropolitan Toronto and Region Transportation Study has addressed itself. In evolving guide lines for a transportation policy, it has been recognized that the means of transportation are but a part of a complex fabric of regional development, and that a look at the emerging pattern of regional growth is essential to sound land use and long-term investment in transportation facilities — in short, to sound planning. This report takes that forward look by presenting a number of concepts for development to 2000 A.D.

It must be emphasized that the report is only the first step in evolving, adopting, implementing and fulfilling a regional plan. The logical next step should be an in-depth evaluation of these concepts by those provincial agencies whose activities impinge upon regional development. Included among these are the departments of Agriculture, Economics and Development, Health, Highways, Transport, Municipal Affairs, the Ontario Water Resources Commission, Ontario Housing Corporation and the Ontario Hospital Services Commission. A collective evaluation would help determine which plan, or modification thereof, should be recommended for adoption.

The report is not the product of a vast research organization labouring over many years. It has, however, been built upon practical knowledge and the considerable reservoir of regional research carried out by governments, universities and research organizations. It represents only one part — the regional development plan — of the Transportation Study.



CHAPTER 2

THE APPROACH

Two approaches to the task of developing a sound concept of future regional growth were considered.

One involves identifying various development concepts that have been put forward by planning theorists, and testing their suitability for the region. Their form might be Spread, Satellite, Lineal, Concentrated, Parabolic, etc. The use of this approach by planning agencies was studied.

The other approach is to examine critically the emerging development pattern in the region, to bring to light its strengths and weaknesses and potentials, and to make the changes and adjustments that appear necessary to meet the conditions of the future.

This second approach, generally, is the method adopted by this study.

The reason for this choice is important. We do not begin with a clean slate. The decisive consideration is that the future form of regional development is greatly influenced by the growth of a region of nearly 3,000,000 people, and by the various official and draft plans already prepared by the municipalities in the area — including the draft official plan for the Metropolitan Toronto Planning Area¹ (see Notes & References, page 69) covering one-fifth of the area and over two-thirds of its population. Such features of the regional structure as the location of the harbours, the strongest business district, the major transportation routes, the paths of residential development, must be reckoned with. *The seeds of the future form are planted in the present pattern.*

With this view of the problem, an approach stressing theoretical concepts is not the most useful. More pertinent is a method that starts with an effort to understand present conditions and where the trends are leading, and sets this against the regional objectives sought. This implies a continuing long-range process of observation and change — the examination and evaluation of conditions, the change of structural features in line with objectives, the observation of effects, further changes, and so on.

To make the method of the study work, one needs to have a picture of the present situation in terms of the use of land, population and employment; to know what changes in population and employment may be expected in various parts of the region at the adopted target year, 2000; how these will be expressed in terms of the demand for residential and industrial land; to see clearly the effect on future growth of existing long term municipal plans in the region; and to evolve definite goals which indicate the kind of region we want. The MTARTS' *Study of Regional Economic Prospects* by Larry Smith and Company was especially helpful in arriving at population and employment forecasts.

Here is how this was done:

1964 Land Use, Population and Employment

Information was collected for five development sectors (page 7) adopted by the study.

The pattern of development was expressed in the 1964 Land Use map (Map 2, in Appendix) in terms of regional elements (defined on page 10).

2000 Population and Employment

These forecasts were prepared on the basis of an economic study of the region. Trends in population and employment were examined and forecasts made for each of the development sectors. The economic premises relating to the growth potential of the region and its future employment composition underlie the concepts.

2000 Residential and Industrial Land Requirements

Residential land requirements for the forecast population were calculated by assuming two different residential densities — a possible maximum and a minimum.

Industrial land requirements were based on the median figure of a possible range of future industrial acreage suggested by the above economic study.

Consolidated Municipal Plans

Development in the region is presently guided by forty-one approved and draft official plans as well as regulatory measures prepared by the constituent municipalities.

Plans were consolidated into one map to indicate what the future form of the region might be if it continued to be shaped, in mosaic fashion, by a variety of plans concerned with local objectives (Map 3, in Appendix).

Trends Plan, 2000

The consolidated municipal plans map, modified to 2000 A.D. by future residential and industrial land requirements, was called the Trends Plan inasmuch as it depicts the approximate form of the region if past trends and present policies continue. It does not show absolute limits to urban development in 2000, but outlines a range of land area necessary to accommodate the forecast population at possible variations in residential density (Maps 3 and 3A, in Appendix).

Regional Goals

The goals or objectives for the region of the future were drawn up by the Department of Municipal Affairs assisted by the Regional Development Advisory Group. This group contained the varieties of background and experience essential for developing guide lines for the future form and structure of a large, complex and dynamic region.

Included in it was staff representation from the Department of Municipal Affairs, the Metropolitan Toronto Planning Board and the Metropolitan Toronto and Region Transportation Study. In addition the group comprised four individuals representing national and international experience in regional planning and urban growth, and expertise in the housing and social aspects of development.

From the deliberations of this group emerged twelve regional goals. These goals, and the definition of the criteria or conditions necessary to attain them, serve two critical purposes in the regional development study. They are the basis for the evaluation of the Trends Plan, for the identification of its advantages as well as its problems. And they form the basis for the recommended general concept or model of regional growth — the pattern to which the Goals Plans aspire.

Goals Plans, 2000

The examination of the Trends Plan indicated that in certain respects it fell short of attaining the regional goals. Four different ways of overcoming the identified deficiencies, ways rooted in the conditions of the region, were worked out. These are the alternative Goals Plans for the year 2000 — I, II, III and IV.

Goals Plans I and II are alternative forms of a regional lakeshore city, developed along transportation corridors. Goals Plan III modifies this form by the introduction of an inland transportation corridor. Goals Plan IV suggests a system of new towns that are satellites to the major urban complex along the lakeshore.

An Approach to an Evaluation Technique

An initial evaluation was made of both the Trends and Goals Plans. Each was rated in terms of the degree — strong, moderate or weak — of their realization of each of the regional goals. The results are summarized in chart form. The stage is set for a more rigorous analysis of alternative plans by transportation, utility, education and other government agencies.

The chapters that follow detail the step-by-step progression of the study.

It should be noted here that the term “city” where it appears in this report is used only as a convenience to describe an urban area. No political or legal connotation is intended.



CHAPTER 3

THE BASIC FRAMEWORK, 1964 AND 2000

REGIONAL CHANGE AND GROWTH

Population and employment at the base date of 1964 and the target date of 2000 are shown, by sector, in Tables 1 and 2. Each shows a rise by about 130%: population from 2,799,600 to 6,430,000 and employment from 1,015,500 to 2,330,000. The forecasted overall annual rate of population increase is 2.3% compared to a previous thirty-three year annual average of 2.8%.



DEVELOPMENT SECTORS

MAP 4

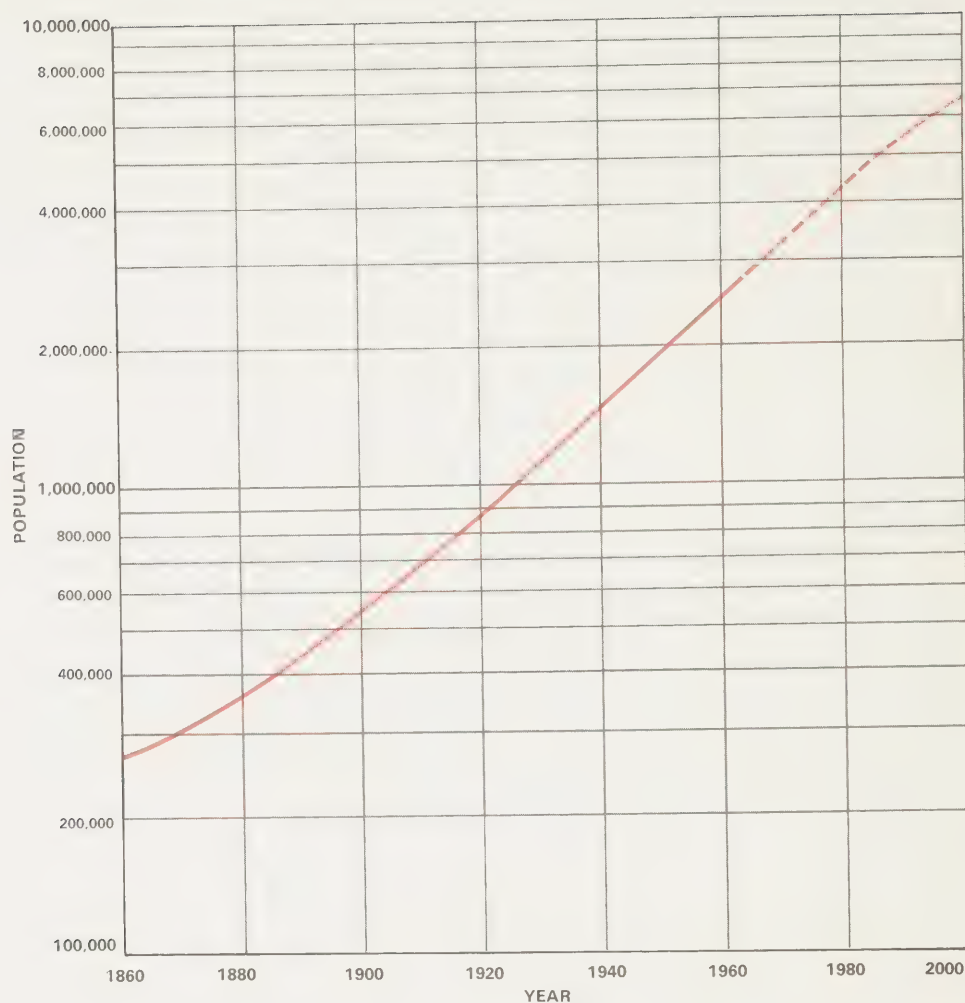


FIG. 2

POPULATION GROWTH

The shifts among the sectors shown in the Larry Smith Study indicate future changes in the regional economic structure and the broad economic premises that underlie the 2000 plans. The sector figures shown in the tables are for the Trends Plan only. While the general trends they reflect are assumed in the various Goals Plans, there are differences in the sectoral distribution which will be shown and explained in the chapters on the Goals Plans.

The significant decline in the share of the Toronto Sector — from 72.2% of regional population to 65.5%, and from 75.8% of employment to 68.6% — is a symptom of the greater relative growth in the Guelph, Barrie and Oshawa Sectors, where both employment and population will increase three to four times within the thirty-five year period.

Underlying this shift are certain anticipated changes in the ranking and sectoral distribution of major employment categories between the present and the year 2000. The most striking change is the supplanting of manufacturing by services as the major employment category.

TABLE 1
POPULATION
1964 AND 2000 (TRENDS PLAN)

Sector	1964	% of Region's Population	2000	% of Region's Population
Toronto	2,020,800	72.2	4,210,000	65.5
Hamilton	415,200	14.8	990,000	15.4
Guelph	133,600	4.8	480,000 ²	7.5
Barrie	120,400	4.3	380,000	5.9
Oshawa	109,600	3.9	370,000	5.7
Region	2,799,600	100.0	6,430,000	100.0

TABLE 2
EMPLOYMENT
1964 AND 2000 (TRENDS PLAN)

Sector	1964	% of Region's Employment	2000	% of Region's Employment
Toronto	769,900	75.8	1,600,000	68.6
Hamilton	146,900	14.4	360,000	15.4
Guelph	37,500	3.7	150,000 ²	6.4
Barrie	21,900	2.2	95,000	4.3
Oshawa	39,300	3.9	125,000	5.3
Region	1,015,500	100.0	2,330,000	100.0

SERVICES

The economic study divides the Services category into seven groups — education, health and welfare, religious organizations, motion pictures and recreation, services to business management, personal services, and miscellaneous services. Each of these has different locational biases.

Some are strongly oriented to major business centres, particularly to the Toronto centre. These include business (e.g. accounting, law) and some personal services (e.g. hotels, restaurants).

Others are more widely dispersed. These include education, health and some personal services (e.g. shoe repair shops, barber and beauty shops).

The results of the economic study indicate that in the future there will be an important change in the degree of dominance of the Toronto Sector in the provision of services. Its share of total employment will fall from 75.8% to 68.6% from 1964 to 2000, while that of the Hamilton Sector will rise from 14.4% to 15.4%. The combined rise of the other three sectors will be from 9.8% to 16.0%.

Since many of these services are related to the business centre, this rise of services beyond the Toronto Sector indicates a need for, and a strengthening of, business and cultural centres beyond the major metropolitan concentration of the region. The bias of future retail trade is in the same direction.

In another respect, however, there will be a continuation of the dominant role of the Toronto centre, and that is in the finance, insurance and real estate group that, as the *Plan for Downtown Toronto*³ has shown, is heavily oriented towards the centre of Toronto. This group, which is not part of the Services category, will expand about three-fold by the year 2000 and in the process the Toronto Sector will retain its predominance in financial services.

MANUFACTURING

While manufacturing employment as a whole will expand at a declining rate, the economic study forecasts a change in the distribution of manufacturing activities. Guelph, Barrie and Oshawa Sectors will have a rising share of manufacturing employment in the region. This movement outward will occur as well within the Toronto Sector. The same type of change is forecasted for wholesale trade.

This decentralizing tendency of manufacturing is considered a strongly-based, long-range trend explained, in summary, as follows: "Industries located in the outlying sectors have access to all the basic facilities such as transportation, communication, finance and labour forces of the metropolitan areas while being able to acquire new and large sites at a relatively lower cost and can make adequate reservations for possible expansion."⁴ Brampton, with almost five-fold employment expansion between 1949 and 1963, is cited as the archetype of this tendency.

The two conspicuous manufacturing specializations — iron and steel in Hamilton and automobiles in Oshawa — are expected to grow substantially and to continue to dominate their respective areas.

These trends in the economic structure indicate four distinct locational needs of the major employment categories: unique services like finance in the regional centre; general services in other centres; manufacturing and wholesaling in outlying areas near transportation facilities; and certain highly specialized industrial activities at specific locations. These requirements will be reflected in the regional goals and criteria set out in Chapter 5.

DENSITY AND LAND REQUIREMENTS

The 130% increase in the region's population between 1964 and 2000 — an addition of approximately 3,600,000 persons — will create a demand for substantial areas of new residential land, as well as for related activities. The amount of land required, obviously, will depend on future density of population.

Two approaches to this critical question of density are taken in this report.

- The Trends Plan uses gross residential density as an index, that is, the number of persons per acre of land used for housing sites and ancillary purposes — local streets, schools, shops and parks. By adopting a *density range* the plan reflects contrasting land development tendencies leading, on the one hand, to higher densities and, on the other, to lower densities than prevail today.
- In the case of the Goals Plans, the *population density* of each major residential district *is determined by the features in the regional structure* arising from the adopted regional goals.

THE REGIONAL ELEMENTS

Employment and population forecasts and their distribution within the region provide the parameters for a year 2000 concept of regional growth. The concept itself must be expressed in terms of certain key activities or elements that determine the shape and structure of regional settlement. These elements, that in a sense will be the basic "vocabulary" of the concepts presented in this study, are:

The Regional Centre — the central business, civic and cultural district of Toronto that contains certain unique and specialized functions serving the entire region.

Subregional Centres — the centres, both within and outside the heavily urbanized parts of the region, that contain a wide range of activities — shopping, civic, entertainment, cultural, professional, personal and business — and that because of this diversity assume a special role in the subareas that they serve, e.g. central business district of Oakville.

Major Commercial Centres — large, compact shopping areas, e.g. Dixie Plaza.

Major Commercial Streets — major commercial areas that assume a lineal or strip form, e.g. Danforth Ave.

Residential Areas — in several categories of density ranging from high, characterized by the big apartment to low, dominated by the detached single family house; and some with a mix of all housing types.

Industrial Areas, Noxious — areas containing mostly industrial plants, known to create problems of air and/or water pollution, or that are in some other way objectionable; e.g., in sight, sound or vibration.

Industrial Areas, Non-Noxious — areas containing mostly industrial plants that have no pollution effects or that have effects normally controllable.

Major Recreational Areas — (i) the areas sufficiently large and accessible to serve the population from all parts of the region for day outings; (ii) the web of natural park areas based on lakes, rivers, ravines, woods and escarpment; and (iii) special interest areas, such as Pioneer Village.

Special Uses in Open Areas — developments such as universities and research centres that characteristically are set in large landscaped spaces.

The Major Transportation Network — the road, public transit, rail and other facilities serving the major traffic demands — home-work, leisure time, and commercial — within the region; airports and harbours.

The development pattern as it existed in 1964 is shown in terms of these elements in the map of 1964 Land Use (Map 2, in Appendix). The year 2000 concepts presented in this report represent variations in the size and location of these elements. Limited information made it necessary to generalize some of these elements in the Goals Plans but the essential delineation of structure is retained.



CHAPTER 4

THE TRENDS PLAN

GENERAL FEATURES

The Trends Plan pictures the development pattern in 2000 as it would be if long-range municipal plans (official or draft-official plans) continue to guide the development of the region.

It also assumes that the prevailing pattern of senior government development policies will continue. At the regional level these policies are mainly permissive — two or more municipalities may establish joint planning boards; municipalities may initiate urban renewal schemes and each department and agency whether federal or provincial pursues, with varying degrees of co-ordination, its specific purposes.

The Trends Plan is shown in Maps 3 and 3A, in Appendix. Its base is the consolidated municipal plans. On this base (Map 3) is shown how the forecasted year 2000 population would be accommodated, depending on the possible variation in density of population. For clarity, Map 3A repeats these variations in land requirements.

Here is what the maps show:

The residential land required for the high-density assumption is almost identical to the land provided by the consolidated municipal plans, whereas there is a considerable spill-over of residential areas to meet the greater land requirements of the low density assumption.

With industrial land, the Trends Plan indicates only a minor modification of the consolidated map. The industrial land designated in the municipal plans was more than adequate to meet the forecasted demand derived from the *Study of Regional Economic Prospects*.

Transportation facilities shown in the Trends Plan indicate that regional transportation will be dominated, as it is today, by the private vehicle. Map 3 shows an extension of the expressway network presented in the proposed Official Plan of the

Metropolitan Toronto Planning Area, with an emerging commuter rail system represented by the Government of Ontario (GO Transit) service from Hamilton to Pickering.⁵

The consequences of the present development pattern: At the centre of the region is a large city, reflecting both the inward pull of its major centre just north of the harbour, and the outward thrust of development along radial roads, transit and rail lines and connecting east-west routes. Most of it is contained within a ten mile arc, from Port Credit to Guildwood, drawn from the centre of downtown Toronto at Queen and Yonge Streets.

Beyond the arc there are conspicuous urban extensions to the north along the path of Yonge Street— pioneer trail, main street, and the modern city's most influential artery; and to the west in the direction of Ontario's " . . . rich agriculture and close mesh of flourishing urban centres."⁶ East and southwest beyond the arc along the lakeshore transportation route, the present tendency of originally separate communities to merge with Toronto at the centre, and Oshawa and Hamilton at each end, has become more pronounced and a major feature of the regional pattern.

The metropolitan culture spreads along the lakeshore axis, but the existing centres of specialized activity persist. Steel at Hamilton; automobiles (or their end-of-century equivalent) at Oshawa and Oakville; harbours at Toronto, Hamilton and Port Credit; and industrial research at Burlington and Toronto Township become the basis of substantial new growth. On the northwest periphery of the region the centres based on the Grand River watershed (Kitchener, Waterloo, Guelph, Preston and Galt) become increasingly integrated into a single urban complex. This new entity becomes highly self-sufficient but, because of its increased size and diversity, contacts with the lakeshore complex increase.

Manufacturing and wholesaling establishments are widely dispersed along rail and expressways reflecting the dominance of light consumer goods' firms that can locate satisfactorily at many points along the routes to their markets.

Residential development tends to be formless, although some new communities emerge — in the sense of areas of interaction with separate identities — particularly where this is encouraged by the physical form and the service pattern. The dominant apartment area up to eight miles from the centre of Toronto tends to intensify towards the centre, reflecting the appeal of the core to the young. It also underscores the persisting demographic fact that the majority of households within five miles of the Toronto centre consist of childless families or non-family groups. At the same time the substantial demand for small housing units throughout the region will result in a wide dispersion of apartment groups.⁷

Commercial development outside the region's major centre takes the form of highly competitive activity to meet the retail and service demands of burgeoning residential areas. As a consequence there are a large number of commercial areas, compact or lineal in shape — some exclusively retail and others moving towards subregional diversity — characterized by a considerable variation in size, quality and appeal. The lack of a clear-cut policy to foster stable centres of the subregional type affects both the quality and range of private and public investment. It produces an overall situation of flux and uncertainty in the service structure which is echoed in the underlying community structure.

Preserved in their natural state are the ravines and river valleys that punctuate the watershed of the Lake, but these are increasingly dwarfed by the massiveness of urban development. Much of the land close to the lakeshore from Oshawa to Hamilton is urbanized. Within the Metropolitan Toronto Planning Area a continuous waterfront parks system emerges, but this is not carried through along the remaining fifty miles of lakefront. The open countryside recedes as built-up limits extend from six to twelve miles north of Highway 401.

THE RANGE OF RESIDENTIAL DENSITIES

The range of gross residential density (see page 10) in the Trends Plan is from an average of 29.9 to 13 persons per acre of newly developed land.

The upper limit is derived from the proposed Official Plan of the Metropolitan Toronto Planning Area which assumes the average gross residential density at the end of the planning period to be 32 persons per acre within the corporate limits of Metropolitan Toronto and 27 persons per acre for the entire Planning Area. Implicit in the adoption of this density for the entire region is the prospect that density differences within the urbanized parts of the region will tend to narrow.

The lower limit is derived from the possible minimum density forecast by the *Study of Regional Economic Prospects*. It in turn was based on a number of studies of land required for residential areas, present and past, in a cross-section of existing large cities. This is “modified in light of the MTARTS land usage patterns and densities where known, and our judgements as to the type of future urban development likely to take place within the . . . study area as indicated by past experience.”⁸

Maps 3 and 3A, in Appendix show the amount of new residential land required to accommodate the 2000 forecast population increase over 1964 of 3,630,000 (making a total of 6,430,000). The consequences of this growth are indicated for both ends of the density range. Either prospect—or some density in between—is entirely possible under the guiding assumptions of the Trends Plan which are a continuation of the prevailing government development policies and the lack of a region-wide growth concept.

In the case of the higher density it is assumed that 20% of the population increment in the Metropolitan Toronto Planning Area (15% in the rest of the study area) will be accommodated in the rebuilt, renewed, or infilled parts of the built-up area.

Each of these density range limits represents a different view of the future:

The high density reflects the judgement that the marked increase in the rate of new higher density housing construction of the past fifteen years will continue and become characteristic of the period to 2000 A.D.

Since 1949 there has been a dramatic change in the composition of new housing in Ontario. Single detached housing decreased from over 92% of the Ontario total yearly dwelling unit completions to 49% in 1965, while apartment, row and other multiple-type housing increased from 8% to 51%.⁹

This trend appears to be more pronounced in the study region than in the rest of Ontario and is a continent-wide phenomenon. (Even in Los Angeles, the epitome of “spread city”, apartments and other multiple-type housing increased from about one-third of new residential construction to three-quarters in the twenty-year period from 1941 to 1962.)¹⁰ In development it is characterized by projects that are a

familiar and accepted part of the contemporary style of living — Yorkwoods Village, Don Valley Woods, Flemington Park and so on.

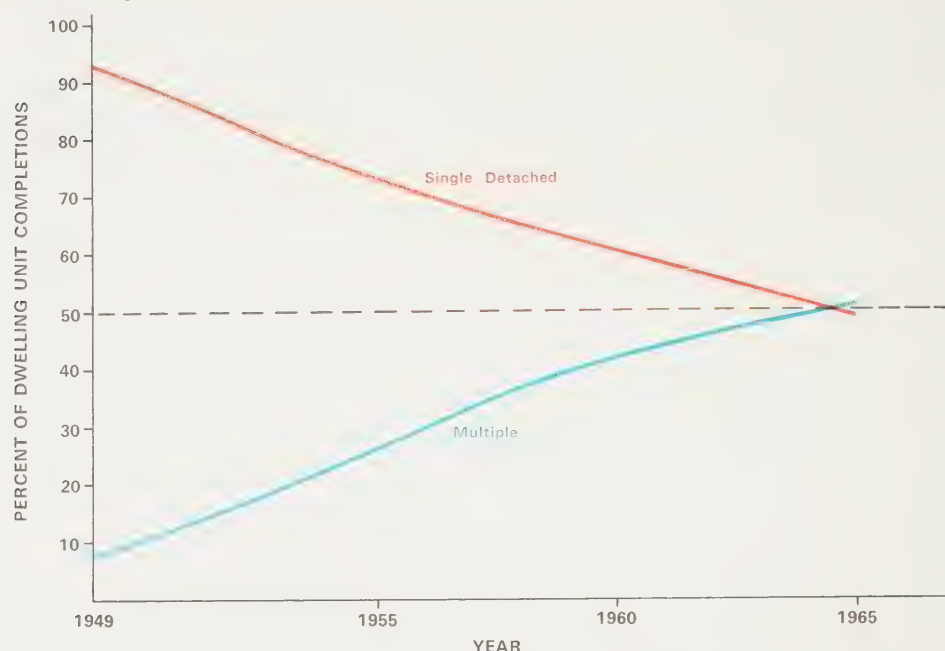


FIG. 3

COMPOSITION OF NEW HOUSING IN ONTARIO

The lower end of the density range represents the tendency towards higher standards of residential space and supporting facilities of schools and shopping. It expresses the kind of spread-out development we could have if present urges towards the comfortable, free-standing house on a large landscaped lot becomes more attainable.

LAND REQUIREMENTS

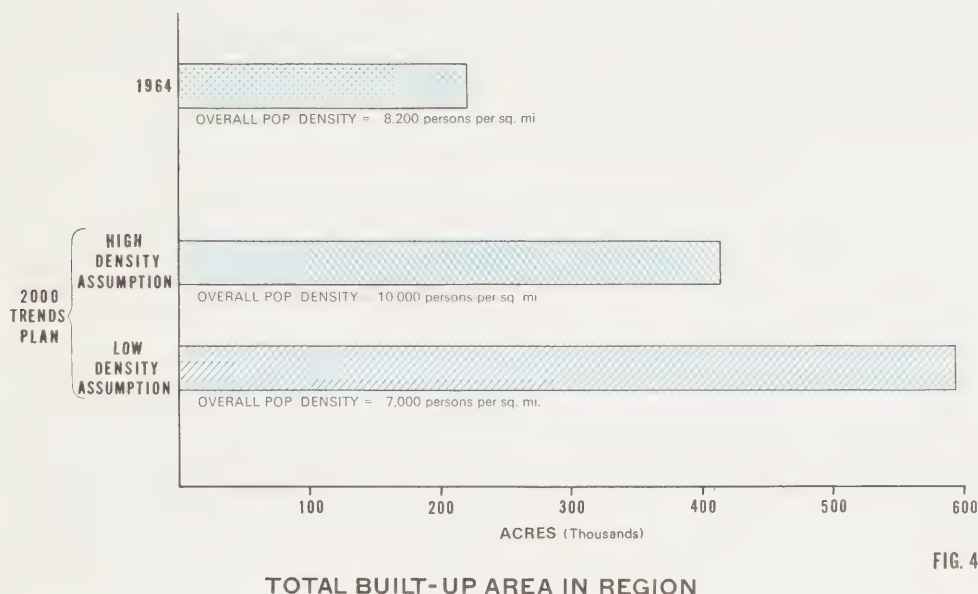
The 2000 Trends Plan's land requirements in the five development sectors are shown in Table 3. It is clear from these figures and the Trends Plan map that residential density will make an appreciable difference in the areal extent and form of the Plan.

The higher density version will require an addition of 100,000 gross residential acres to the 123,000 gross residential acreage of 1964. But the addition at the lower density limit will be 280,000 acres — 25% more than the region's total built-up area (residential and all other uses) in 1964.

TABLE 3
POPULATION & EMPLOYMENT, INDUSTRIAL & RESIDENTIAL AREAS
2000 (TRENDS PLAN)

Sector	Population	Employment	Industrial	Residential Area (gross acres)	
			Area (gross acres)	High Density Assumption	Low Density Assumption
Toronto	4,210,000	1,600,000	82,300	148,300	247,800
Hamilton	990,000	360,000	12,800	33,100	61,300
Guelph ²	480,000	150,000	5,800	15,600	31,400
Barrie	380,000	95,000	3,500	13,400	29,800
Oshawa	370,000	125,000	5,600	12,700	32,600
Region	6,430,000	2,330,000	110,000	223,100	402,900

The overall population density (ratio of total population to total built-up area) is a rough index of the intensity of urban land development. *It is 10,000 persons per square mile at the upper limit and 7,000 at the lower, compared with 8,200 persons per square mile in the developed parts of the region in 1964.*



The location of the 180,000 acres of residential land above the high density requirement was determined by a number of guidelines that are consistent with the trends character of the concept:

- there will be no shift in the forecast sector population;
- the directions of growth indicated by the consolidated municipal plans will be continued; and
- new developed areas will be added to established urban communities, and in proportion to their present size.

Maps 3 and 3A, in Appendix, show some of the consequences of low density residential development and the differences between the two alternative tendencies. Examples:

In the low density version there is a solid belt of urban development from Hamilton to Oshawa. It extends further away from the Lake so that some inland areas between Ajax and Port Credit are beyond economic limits of the lake disposal systems . . . All of the tender fruit area in Saltfleet Township is converted to urban uses . . . Hamilton development extends above the escarpment to a depth of about a mile and a half into Glanford Township . . . The twenty-eight square mile wedge of farmland between the Credit River and Toronto International Airport is fully developed, joining Port Credit to Brampton . . . Richmond Hill development broadens out and changes from its present high density form of limited urbanization along Highway 11, to a substantial area, eight miles wide, and extending north another two miles beyond its present limits towards Aurora . . . Newmarket and Aurora merge . . . Markham is enveloped . . . Whitby, Oshawa, and Bowmanville become a single urbanized area . . . Guelph's area is doubled over 1964, and Barrie's tripled, compared to 20% and 30% at the high density assumption . . . The thrust north towards Lake Simcoe, that is still quite limited in the high density form, becomes a major feature of the low density form.

The Trends Plan, in its high or low density form, expresses development probabilities in a uniform pattern. No change in the present degree of urban scatter is shown—an assumption consistent with the trends approach.

Since the formation of the Metropolitan Toronto Corporation, an orderly accretion on the development fringe has been achieved, not only by zoning, but by the informal control of utilities management. A sequence of development has taken place that produces the greatest servicing economies and this policy has, to a degree, been followed by other major urban communities.

With the enlargement of the scale of development, it may become increasingly difficult to retain this same degree of centralization of policy for the utilities and services that support development. Lack of coordination towards accepted regional goals could result in a series of unilateral actions by public agencies of all kinds which will have the effect of a wider dispersion of settled areas than is indicated by the Trends Plan. All aspects of the region's service structure—notably transportation—will be affected.

The approach of this study to the question of future residential density has been manifestly cautious. *It is not implied that future development will be at one extreme or the other: it could be anywhere within the range.* Yet it was considered important, in the context of a regional transportation study concerned with the traffic effects of differences in the shape and spread of development, to indicate the different directions in which present trends might lead.

RESIDENTIAL PREDOMINANCE

In a working paper for MTARTS on future land requirements, emphasis has been placed on the forces that will generate a relative expansion in certain non-residential areas, particularly the extensive institutional, recreational, and suburban shopping developments.¹¹ The same phenomenon was stressed in a recent international study of urban space needs in Scandinavian countries, in which “the real reason for the increase of the urbanized area per person” was seen to be “the improved living standard.”¹²

The paper pointed out the historical trend to a declining average density, as illustrated by the experience of the New York Metropolitan Region. Here the overall population density fell from 64,000 persons per square mile in 1860 to 20,600 in 1940, and 13,500 in 1954. It asserts that an overall density of 8,000 persons per square mile is the maximum acceptable overall density in the period ahead. This is “only slightly below the average presently found within the city limits of the largest cities of Canada, the United States of America and West Germany”.

While this point of view has been recognized through the “density range”, it should be pointed out that the plunge in overall population density that is foreseen has some definite limits in practice:

- First, it is generally appreciated that, in the nature of things, the historical trend to decreasing overall population density cannot continue indefinitely. At some point it must level off.
- Second, and most important, the predominance of residential land would require an extremely high rate of increase in land consumed by non-residential uses (those sensitive to rising living standards) to affect overall population density significantly.

For example, within the Metropolitan Toronto Planning Area (one fifth of the study area and about 70% of its population), residential land was 51.1% of total used land in 1963 (excluding agricultural and vacant land), and the proposed Official Plan of the Metropolitan Toronto Planning Area forecasts a slight rise to 51.6%. The proportions of the other categories, for 1963 and as designated in the proposed Official Plan, are shown in Table 4.

TABLE 4

1963 AND DESIGNATED LAND USE AREAS*
METROPOLITAN TORONTO PLANNING AREA (M.T.P.A.)

1963 LAND USE

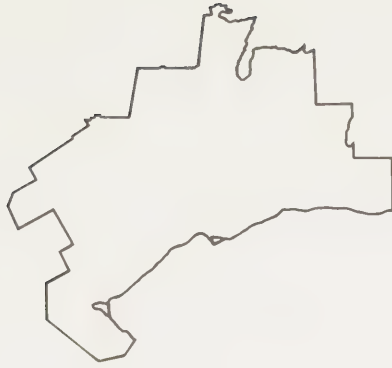
	Residential	Industrial	Commercial	Open Space	Institutional	Transp. & Utilities	Total
Metro Toronto	59.0%	9.2%	2.7%	17.1%	1.4%	10.6%	100%
Fringe Areas	36.0	6.1	0.5	37.8	0.2	19.3	100
M.T.P.A.	51.1%	8.2%	1.9%	24.2%	1.0%	13.6%	100%

DESIGNATED LAND USE

	Residential	Industrial	Commercial	Open Space	Institutional	Transp. & Utilities	Total
Metro Toronto	56.7%	18.4%	2.9%	12.1%	1.9%	8.0%	100%
Fringe Areas	44.4	21.0	0.8	20.6	0.4	12.7	100
M.T.P.A.	51.6%	19.4%	2.0%	15.7%	1.3%	10.0%	100%

*as percentage of total area excluding agricultural and vacant land.

It can be seen from these figures that a relatively large increase in any one category will have a modest effect on overall population density. For example, a 50% increase in "open space" (constituting 15.7% of the total in the proposed Official Plan) would result in only a 7.3% decrease in the overall population density of the Plan. A similar increase in "institutional" space (constituting 1.3% of the total) would produce an overall population density decrease of less than 1%. This factor of residential predominance, present today and continued into the future, will minimize the effect of changes in those non-residential uses that respond to rising living standards.



CHAPTER 5

THE REGIONAL GOALS

Goals for the development of a region are concerned with the primary, inescapable question: "What kind of a region do we want?" They must encompass those aspects of regional life that shape the form and structure of development: the location and relationship of major activities. In response to this question, the Regional Development Advisory Group helped set out twelve goals within the following framework:

ECONOMIC STRUCTURE *as determined by the locational needs of major economic activities*

LAND *as enjoyable landscape and as the basis for agriculture*

ENVIRONMENT, *including the atmosphere, water and the pattern of local communities*

ACCESSIBILITY *to specialized services and facilities, and between major functional areas*

COST *of transportation and other essential public services*

CHANGE *in technology, in the composition of population and in social trends.*

The goals provide a kind of yardstick or evaluating instrument. To be used effectively in this way, it is necessary that for each goal, a criterion or set of criteria be developed that defines the conditions which in each case must be satisfied to attain the particular goal. For example, developing in accordance with the economy of the region requires some knowledge of the major features of the economy, just as concern for the use of good farm land depends mainly on knowing the capability rating of the region's soil.

Not all goals lend themselves to interpretation and application with the same degree of precision. There remains an area of judgement. For each goal, however, an attempt has been made, within the limits of time and staff, to assemble the information and standards that form the basis of relevant criteria.

The results for each goal, grouped under their appropriate headings, are summarized here:

REGIONAL GOALS

ECONOMIC STRUCTURE¹³

GOAL

- 1 To develop in a manner consistent with the locational and space requirements of the region's major economic activities**

CRITERIA

Providing scope for:

- the regional centre-oriented activities — interlocking bank, insurance, investment, legal and accounting activities, etc.
- service activities — commercial, community, cultural and recreational, professional, etc. — oriented to subregional centres
- decentralizing manufacturing activities grouped along major highway and rail routes
- specialized activities with specific locational requirements — steel industry, major airports, etc.

LAND¹⁴

GOAL

- 2 To preserve the unique attributes of the regional landscape**

CRITERIA

- Preserving and extending recreational access, use and enjoyment of Lake Ontario
- Making lakes, streams, valleys, wooded areas and the Niagara Escarpment permanent and positive features
- Developing in a manner that is sensitive to the aesthetic and environmental value of the surrounding farmland, and to its productive use

GOAL

- 3 To minimize the urban use of productive agricultural land**

CRITERION

- Guiding urban development, where economically feasible, to agricultural land of the lowest possible productivity, in accordance with the land capability rating

ENVIRONMENT¹⁵

GOAL

- 4 To minimize the pollution of water and the atmosphere**

CRITERIA

- Developing at a scale and in a pattern that facilitates sewage treatment at a limited number of major plants at Lake Ontario
- Locating noxious industrial plants, where feasible, to minimize effects on adjacent land uses, e.g. to the east of residential development in accordance with the westerly bias of wind origins
- Planning a settlement pattern that is "porous" enough to permit dispersal of pollutants, and that keeps automobile traffic congestion to a minimum

GOAL

5 To facilitate and maintain a pattern of local communities

CRITERION

- Identifying and strengthening existing community structure and promoting growth in the form of major urban communities related to subregional centres

ACCESSIBILITY¹⁶

GOAL

6 To minimize time-distance for the essential population movements between major functional areas

CRITERIA

Providing optimum accessibility by:

- locating services, shopping and offices in a system of centres (regional, subregional and others) located on or close to the regional or distributary transportation network, on which time-distance is reduced to the technological minimum
- grouping manufacturing, warehousing and terminals along the regional expressway and rail network
- linking residential areas by local and district distributors to the centres with which they are associated, to the regional expressway network, and to the stations of the public transportation systems
- locating recreational and community facilities near transportation nodes, homes near major attractive landform features, and residential communities so that they are accessible to the more distant recreational hinterland without fatiguing in-city travel

GOAL

7 To maximize opportunities for using specialized services and facilities

CRITERION

- Locating highly specialized facilities; major educational facilities, concert halls, major hotels, specialized hospitals, central reference libraries, etc. close to transportation nodes

COST¹⁷

GOAL

8 To minimize the cost of moving goods within the region

CRITERIA

- Locating terminal facilities (harbour, freight yard and truck terminals), warehousing and manufacturing areas close to the regional expressway and rail network
- Grouping interlinked industries
- Grouping retail facilities in centres to facilitate wholesale to retail distribution

GOAL

9 To minimize the cost of essential public services

CRITERIA

- Providing a scale of services (sewerage and water) large enough to achieve economies at major sources of water supply and at sewage discharge outfalls
- Distributing major urban functions in a pattern that optimizes the balance between transportation demand and capacity on road and rail networks; and that approximates two-way peak loads on major transportation lines
- Distributing residential population and service and employment centres as to permit use of public transit facilities and to prevent excessive vehicular travel

CHANGE¹⁸

GOAL

10 To develop in a manner consistent with the needs arising from long-term population trends, particularly future growth and changes in age, household size and composition

CRITERIA

Implementing a residential structure that provides:

- for expanding demand for one- and two-person households, for the aged and particularly for the rapidly increasing 20 to 29 age group, in higher density housing forms, near the regional and subregional centres
- for the larger families at a variety of locations, housing forms and densities

GOAL

11 To develop in a manner consistent with emerging and probable future technological innovations, i.e. facilitates, adjusts to, and receives the benefits of such possibilities

CRITERIA

- Assuring that development is consistent with new opportunities for significant reductions in time-distance within the region, either by changes in present modes, or the introduction of new transportation modes
- Making positive use of future increases in computing and telecommunications capacity to achieve greater flexibility in the location of homes and different kinds of work places
- Providing a structure that reflects needs and opportunities for increasing economies of scale in production and distribution, e.g. resulting concentrations of staffs, requiring increasing accessibility, at nodes and along transportation routes

GOAL

- 12 To develop in a manner consistent with the needs arising from social changes, based on future economic and technological developments, e.g. changing patterns of leisure**

CRITERIA

Assuring that development is consistent with:

- increasing preoccupation with leisure activities (both in and out of cities) due to increases in income and leisure time
- a growing tendency to continuing formal education with opportunities and complexes distributed throughout the region
- increasing prominence of universities as teaching and research centres in the urban scene, requiring good access and the back-up of a suitable environment
- a bias to multiple form of housing near centres for increasing number of households containing two workers (due to increased educational and career opportunities for women, revolution in birth control, etc.)
- a relative increase in the numbers seeking permanent country residence, or second residences in the countryside, due to increased income-leisure, more flexible working schedules and improvements in mobility and telecommunications

The goals and the criteria are complementary: the source of interrelated principles guiding the design of the region's development. This does not suggest that all can be fully attained. Designing a region, like designing anything — a house, a car, a sofa — is a process of striving for an ideal which is seldom fully attained, only approximated.

The house that from a visual point of view is a great success, might in an auditory sense be a failure: there may be no escape from the television. In the same way, the planning of large-scale regional development involves reconciling and balancing diverse objectives in circumstances that are much more complex.

FROM REGIONAL GOALS TO REGIONAL CITY

Since the selected goals are complementary, it is possible to synthesize them into a coherent definition of what we seek. From the regional goals we can describe a regional city — in a developmental and not a political sense — with the following characteristics:

- A regional centre containing the most specialized activities of the region — business, cultural and civic — highly accessible to all parts of the developed region, making these activities available to all.
- Subregional centres providing general services of considerable diversity close to residential communities that form distinct urban entities.
- Work places distributed to meet four main requirements of the regional economy: activities oriented to a regional centre; activities oriented to subregional centres; activities, such as relatively “foot-loose” manufacturing, oriented to the regional expressway network; and activities such as a steel complex, with highly specialized locational needs.
- A development form that takes maximum advantage of the natural landscape endowments of the region — the dominant fact of Lake Ontario, other lakes, streams, ravines, wooded areas, hills and the Niagara Escarpment; and which minimizes the use of productive farmland.
- A development form that permits the most rational and economic basis of providing public services.
- A form that is consistent with demographic, social and technological trends with their bias towards increased mobility, greater flexibility in the location of homes and workplaces, larger production and administrative units, multiple type housing forms, education and increasing affluence with attendant effects on leisure and housing.
- All of which is tied together by a transportation system that is geared to a high level of accessibility from residential communities to major locations of work, service and leisure activities, making available the benefits of the regional city to its entire area.

This is the general concept, the adopted model, that will be compared with the Trends Plan and that will guide the formulation of the Goals Plans.



CHAPTER 6

EVALUATING THE TRENDS PLAN

While the Trends Plan is basically a composite of metropolitan and local plans (and as such cannot be considered a concept of regional growth) its examination in the light of regional goals is important. It is an indication of where the region is headed *if a concept*, developed in the light of clear objectives and of the problems and potentials of the entire region, *is not adopted and applied*.

The Trends Plan has been examined in detail in the light of each regional goal and of the criteria and general concept emerging from the set of regional goals. As a result of this analysis certain flaws have been identified. These will be presented with a broad brush, taking care to fill in any detail that serves to illuminate a basic point.

The principles and concept outlined in Chapter 5 may be summarized in three words — *Concentration, Integration, Decentralization*.

— *Concentration* in the regional centre of high powered and unique facilities — from the computer complex to the gourmet restaurant — that depend on the widest possible service area;

— *Integration* between the major parts of the region, particularly with the regional centre so that the services of the centre may be available to all who want them;

— *Decentralization* of general services — both private and public — into other centres (called subregional) that become the business, cultural and civic focal points of the component communities of a multi-million population region.

Implicit in this concept is a philosophy, namely that the historic role of the regional city is to be a vehicle for developing and making available opportunities for the individual citizen.

The comments that follow relate to each of the broad features of regional development (Chapter 5) into which the goals are grouped — economic structure, land, environment, accessibility, cost of public services, and change in basic trends. References to both high and low density assumptions of the Trends Plan are distinguished from those that refer to either one of the density forms.

ECONOMIC STRUCTURE

Land For Steel Industry Expansion

It has been noted the Trends Plan provides adequate land for the industrial expansion indicated by the *Study of Regional Economic Prospects*. Yet in one respect there appears to be insufficient land for future growth, and that is at the Hamilton steel complex.

There are three interrelated elements to be considered:

- the market for Canadian steel that has its major anchor in the regional market;
- the economics of steel production that dictates both growth to a scale of two million tons a year where economy of scale is achieved, and an upper limit of five to six million tons (setting rational limits to the major steel companies at Hamilton);
- the limited amount of suitable industrial land in the Burlington Bay area (the next major thrust in the steel industry will be by filling into the Bay).



These factors suggest it would be prudent for a 2000 plan to anticipate the need for a new site in the region, with a minimum size of 400 acres to allow for growth to the economic limit, and at a place which satisfies the major locational requirements: direct access to the lake where conditions are suitable for a harbour; proximity to rail and major highway; and to the east of major residential development where air pollution effects can be minimized.

The number of sites in the region that can meet the requirements are extremely limited. As the Trends Plan does not explicitly consider this special need it is essential that it be covered in the Goals Plan.

Development Around the Airport

Much of the international stature of Toronto is dependent on its major airport. More international traffic originates here than in any other Canadian city. It would seem wise to allow some space for its future expansion and to permit its operation under conditions that minimize conflict with surrounding ground activities. Since the Trends Plan does not give adequate recognition to this, a crucial economic asset is jeopardized. The airport, at the high density assumption, has development on three sides. At the other extreme, because of the urbanization west to the Credit River, it is completely surrounded.

The impact of the Plan's low density assumption is particularly serious as it will introduce an entirely new relationship between the airport and residential areas in the Toronto region.

The huge wedge affected can house, under this density assumption, more than 200,000 people many of whom, because of the orientation of runways and flight paths, will be affected by sound levels above the "critical" level. The critical level has been considered to be 112 perceived decibels.¹⁹ However, more recent research in the United States and England indicates the level should be lowered to allow for an increasing frequency of flights per day.²⁰

The affected flight path areas extend ten miles from the end of runways — almost as far as the Credit River — and fan out to a mile in width taking the form literally of a dagger in the heart of any future residential community. This is also the path of greatest accident hazard in the vicinity of airports. These effects could be intensified by increased air traffic in the future and by supersonic aircraft.²¹

Such problems inherent in the low density form of the Trends Plan are matters of immediate policy concern because of the declared intention to provide water and sewer services to the Brampton area by building trunk lines that will traverse and that could serve the area in Toronto Township, immediately west of Toronto International Airport.



LAND

The “land goals” in relation to regional landscape and farmland are only partly realized in the Trends Plan. The Metropolitan Toronto Waterfront Plan, although it has no official status, holds out much promise for the sound use of the land along the lake and presents a concept of almost continuous recreational use of the lake-shore. But this covers only about half of the 100-mile regional waterfront extending from Saltfleet Township to Darlington Township.

Wooded ravines and valleys are retained. While these form the basis of a natural park network, they are not in themselves — as isolated areas dominated by residential, industrial and other development — an effective regional system. Yet they are a feature that can be woven into a regional network in the Goals Plan.

It is doubtful whether the Trends Plan can satisfy the criterion, “Developing in a manner that is sensitive to the aesthetic and environmental value of the surrounding farmland, and its productive use.” This is not primarily because of its form, as the agricultural land capability survey indicates a broad band of productive soil for about twelve miles north of built-up limits leaving little choice for selective urban location.²² The problem arises out of the nature of land use regulation.

These have been carefully examined, and the overall judgement is that agricultural lands anywhere in the region can be readily converted to urban uses — either because of the looseness of regulations, the absence of regulations, or the permission of features such as “major commercial establishments” that can act as generators of other urban activities.

The effect of this is to place agriculture in a precarious position — to expose a large area to urban shadow effects, and to render the regional form, that can be punctured in many places, fundamentally unstable.

ENVIRONMENT

Subregional Centres

The Trends Plan lacks a clear and stable pattern of subregional centres. These are the centres that functionally lie between the regional centre at Toronto and the various categories of neighbourhood and community or town centres.

In a complex of six-and-a-half-million people they have a critical role to play. They are a means of bringing closer to home the wide range of services — marketing, government, community, social and recreational — that require a service base that is greater than the twenty- to twenty-five thousand persons in four or five neigh-

bourhoods served by a typical community centre, but not as great as the multimillion population of the regional centre that has both national and international roots.

This is the centre that typically will contain the one-hundred-thousand rather than the three-hundred-thousand square-foot department store. It is the natural locus for regional library branches, providing every 100,000 of the population with “the full range of bibliographical, reference and cultural service”²³; and for community colleges serving populations of not less than 80,000.



The professional man — engineer, architect, accountant — whose practice is not neighbourhood-oriented will wish to locate there. It is a natural seat of local government, or at least for the location of decentralized government services.

Because of all these things, the subregional centre can play an important psychological role in sustaining a link between the individual and his community. It is close enough for personal access and identification; big and diverse enough to provide material satisfaction and fitting symbols for local pride.

To perform its role effectively the subregional centre should be at a transportation node, that would act as the hinge between the centre and its service area, and between the entire subregional complex and other parts of the region including the Toronto centre.

While the Trends Plan contains subregional centres, they are not given the strategic role they must play in the regional city. In spirit, it reflects a policy that merely permits the development of diversified subcentres linked by transportation to residential areas. In practice, the permissive approach leads to conditions of overlapping service that prevent the emergence of strong, stable and fully-rounded subregional centres as well as to conspicuous gaps in the structure of centres.

This is demonstrated by the accompanying map (Map 5) of hypothetical service areas for subregional centres identified in the Trends Plan. The service areas are described by circles with radii of five miles as an approximate range of influence.²⁴ These are not the actual service limits, but hypothetical limits when traffic constraints are greatest.²⁵



HYPOTHETICAL SERVICE AREAS
(of Trends Plan subregional centres)

MAP 5

The resulting pattern is a maze of overlapping service areas in the central city, with a few conspicuous gaps: the Rouge River area between the Ajax and Eglinton-Victoria Park (Golden Mile) centres; the area north of Highway 401 between Highways 404 and 48; and the area on the Niagara Escarpment in Hamilton. In addition, the subregional function is split between centres north and south of the Queen Elizabeth Way at Port Credit.

The precarious structure of subregional centres in the Trends Plan has consequences that inhibit fulfilment of the regional goals. The underdevelopment of these centres will place a burden on some activities (e.g. health, education) within the regional centre, accompanied by pressure and congestion on transportation facilities focussing on the regional centre.

At the same time, this pattern limits opportunities for integrating subregional centres with transportation nodes — places where a commuter rail station is linked with a subway station, where an express stop is located, where expressways and major roads are focussed, etc. The ability of the transportation network to tie the region together is accordingly inhibited.

Pattern of Communities

The interaction between centre and community structure has been clearly stated by Humphrey Carver, a member of the Regional Development Advisory Group:

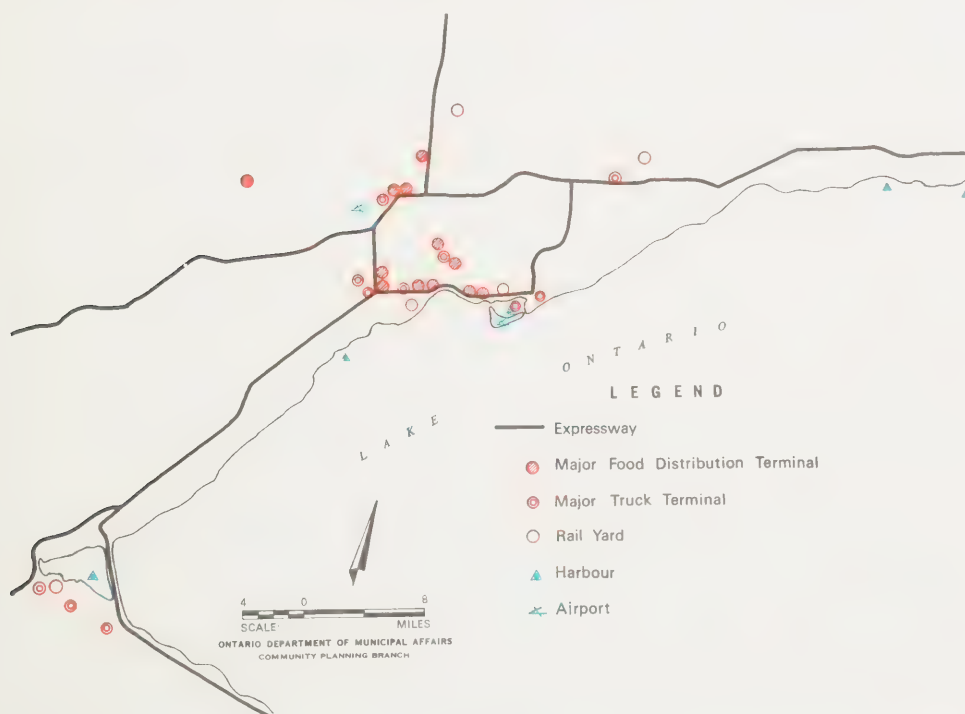
“Our private lives in cities do not revolve around the places where we work. The focal points in the residential city must be contrived out of the interests people share as consumers, citizens and householders. These interests take physical form in the institutions that serve a community: in shops and schools and meeting-places. So the key places we are seeking, to give social structure and physical shape to the suburbs, may take the form of Town Centres.”²⁶

While these remarks are inspired by the role of centres serving groups of neighbourhoods, they apply with equal force to the next level of centre serving groups of “towns”. Faults in the structure of subregional centres reverberate throughout the region.

ACCESSIBILITY

Goods Movement

There are indications that the Trends Plan, with its highly evolved expressway network, will handle the major goods movements with great efficiency. Map 6 shows the location of twelve major food distribution terminals and eleven major truck terminals. With one exception, all of these establishments are located on or close to the regional expressway network, indicating that the Plan will afford sufficient opportunity for intra-regional carriers to achieve an optimum location. Difficulties will be experienced in wholesale-to-retail distribution because of the wide dispersal of destinations within the built-up city. This could be mitigated by a firmer structure of subregional centres.



MAP 6

RELATIONSHIP OF MAJOR TERMINALS TO EXPRESSWAYS



Passenger Travel

The built-in assumption of the Trends Plan is that most of the longer distance trips within the region will be by car or some other form of private vehicle. The region will accordingly experience both the well-known advantages and limitations of this mode.

Critical from a regional point of view is the lower peak-hour capacity of highway travel compared to the potentials of other modes and the necessary limits on vehicle speed. Given these conditions, an increasing strain will be placed on the transportation system as the urban periphery expands to accommodate six and a half million people.

To maintain a high standard of accessibility as called for in the goals — accessibility from homes to a wide choice of jobs and recreational facilities — it will be necessary to extend the balance achieved between transportation modes within the central part of the region (approximately the 10-mile subway range from the regional centre) to the entire region.

From this point of view the lakeshore commuter service shown in the Trends Plan, with its frequent stops, average speed of about 35 miles per hour and limited range, must be regarded as only a start.

COST

Public Services

Municipal costs are an issue in the low density form of the Trends Plan. This arises from the fact that development will have a relatively spread out character. Accommodation of the 1964-2000 population increase will require 180,000 acres more than is provided in the higher density form.

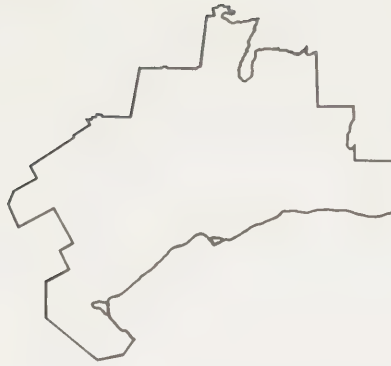
This means that the ordinary costs of roads, power lines, sewer and water lines will multiply. For example, public rights-of-way in a residential area commonly account for about 25% of total area. At that rate, development in the low density form will require 70,000 acres for streets compared to 25,000 acres in the high density form. As well, construction and maintenance costs of the additional miles of streets, walks and landscaped areas will increase proportionately.

CHANGE

Transportation Technology

Formation of the Trends Plan by welding together metropolitan and local plans, makes it inherently insensitive to the broad trends shaping regional development in the next two generations.

Technological innovation in transportation makes this weakness particularly serious. We plan at a time when change in the direction of increased mobility and reduced time-distance is in the offing. It matters not whether the dominant mode will be the underground capsule being developed at the Massachusetts Institute of Technology to integrate inter- and intra-urban transportation, the hovercraft, the monorail, the automated highway, or just the 160 miles-per-hour train: the large and inescapable fact is that we must plan for and take advantage of the geographical shrinking of the region.^{27, 28} The vistas opened up for heightened access to jobs and leisure will be the hallmark of the regional city of the future.



CHAPTER 7

GOALS PLAN I

Fundamental to the approach to sound regional development is to strive towards an ideal plan by first setting goals against present plans, identifying the discrepancies and then fashioning a development pattern that more closely approaches the goals and the general concept they imply. Goals and criteria are detailed in Chapter 5.

This chapter presents the first of four alternative regional concepts (see Map 7, in Appendix).

While the Trends Plan falls short in some critical ways of fulfilling the regional goals, there is latent within it a form that holds considerable promise. This uncrystallized form is that of a highly integrated lakeshore city that can be brought closer to the regional goals by invoking these sixteen features:

GENERAL FEATURES

Lakeshore Transportation Corridor

Establishment of a transportation corridor along the lake, based on present road and rail rights-of-way, but with these facilities stepped up in performance to bring the eastern and western extremities within commuting range of the regional centre.

Lakeshore Corridor Cities

Location along the transportation corridor, at intervals of about ten miles, of a limited number of cities that are large enough to generate subregional centres distinguished by a wide range of high quality services.

Emphasis on Lakeshore Environment

Location of each subregional centre and its frame of high density housing to take full advantage of the environmental and recreational potentials of the lakeshore and the lake itself.

Terminal Cities

Location of major terminal cities at each end of the transportation corridor, large enough to exert their own force on regional traffic by generating more balanced two-way peak-hour flows along the corridor.

Integration of Centres, Express Stop Stations and Feeder Routes

Establishment of a commuter-rail-express stop near each subregional centre along the corridor.

Integration of the express stop station with the subregional centre and with residential areas by internal feeder roads (and transit system) and off-street parking.

Subregional Centres Within the Central City

Identification and development of subregional centres within the central city at transportation nodes.

Strengthening of each subregional centre with nearby higher density forms of housing.

Distribution of Employment Areas

Distribution of manufacturing and wholesaling industries and other economic activities to provide a range of employment opportunities in each of the cities within the region.

Outer Transportation Corridor as Parkway Belt

Establishment of a secondary transportation corridor, a Parkway Belt with the dual purpose of providing flexibility in meeting future transportation demands and of defining the northern limits of the corridor cities.

Parkway Belt — Link to Recreation and Roads

Linking the Parkway Belt, the ravines and valleys, the lakefront park and the Niagara Escarpment into a continuous regional park and recreational network.

Linking the Parkway Belt to the main transportation corridor by north-south connecting major roads.



Ring of Country Residence Areas

Establishment of a ring of permanent country residence areas near existing nuclei connected by a scenic road. These areas, located in attractive, rolling, wooded highlands, would offer low pressure, low density living within 15 to 40 miles of the lakeshore city, and would be linked to it by highway and/or rail service.

Conservation of Unique Resources

Preservation of Lake Simcoe as a regional recreational resource.

Preservation of good farmland beyond the Parkway Belt for agricultural use.



Application of these principles takes the form of a lake-oriented regional city consisting of a central city (Metropolitan Toronto), with a population of 2,750,000, two terminal cities, Hamilton (including adjacent townships) and Oshawa with 695,000 and 430,000 respectively. From Metropolitan Toronto westward to Hamilton are three corridor cities — Burlington with a population of 295,000, Oakville 430,000 and Port Credit 500,000. To the east, Guildwood has a population of 190,000 (part of which is within Metropolitan Toronto) and Ajax 280,000. Whitby and Bowmanville remain smaller centres with populations of 60,000 and 40,000 respectively.

There are ten subregional centres serving the central city — Yonge St.-St. Clair Ave., Bloor St.-Islington Ave., Danforth Ave.-Victoria Park Ave., Golden Mile, Agincourt, Willowdale, Yorkdale, Weston, Albion Road-Kipling Ave., Richmond Hill. Five of them are linked by subway to the regional centre; all have major road access.²⁹

SIZE OF CORRIDOR CITIES

The size of the corridor cities is a direct expression of the general goals concept. It is based partly on the need to establish a limit to lateral spread if each city is to achieve an effective relationship with its subregional centre.

This limit is approximately five miles, based on the objective of placing the outer limits of development within 30 minutes of the centre under conditions of maximum peak-hour congestion when average bus speeds are ten miles per hour. The five-mile limit will, as well, place a substantial part of the population within convenient reach of a commuter-rail-express stop station.

Another consideration is the relationship between the size of a city and the hold of its centre on its retail and service market. This hold is substantial (in the order of 71% to 67%) for cities in the range of 100,000 to 500,000 population but it falls sharply after the half-million mark.³⁰

While this empirical evidence is derived mainly from urban areas in the United States, it is relevant to Goals Plan I because it is part of the concept to create conditions that will achieve a high degree of self sufficiency within each urban entity while facilitating interdependence for the range of opportunities that have a regional base.

COMMUTER RAIL

A commuter rail service with a maximum speed of 100 miles per hour is installed within and along the present CN right-of-way. It would place Hamilton about 40 minutes, and Oshawa approximately 35 minutes from Union Station, allowing for acceleration and deceleration of approximately three minutes and a stop of two minutes at each express stop station. Local commuter service is maintained between express stops and serves an important feeder function. This service, characterized by high speeds and close headways, is complemented by a system of local bus services on a major road network (as illustrated in the schematic plan of Oakville, Map 10, in Appendix) geared to the overall objective of reducing door-to-door travel time.



Achieving this level of local and express service, while maintaining the regular CN freight and passenger service might require changes in railway facilities. The cost and feasibility of a commuter rail express service will depend on the extent of these changes. Such matters must be considered carefully in the transportation analysis.

POPULATION DENSITY

As noted on page 10, a different approach to density is pursued in a Goals Plan than in the Trends Plan. A Goals Plan attempts to embody adopted regional goals. These goals do not state any density objective. Yet goals relating to economic structure, environment and accessibility lead to certain features (such as compact new or extended cities focussed on high-quality subregional centres at transportation nodes) that have density implications.

The high density areas (Map 8, in Appendix) around the regional centre and the sub-regional centres provide favoured locations for the people in the age groups of 20 to 29 and over 65 who require small housing units. At the 1961 Census, 13.6% of the population in the Study area was in the 20 to 29 age group and 7.8% was over 65.

The *Study of Regional Economic Prospects* forecasts that, in the year 2000, these groups will be respectively 14.3% and 8.8% of the regional population — a sizeable group of about one and a half million people.

The affinity of these groups and of multiple housing forms for central locations has deep roots in an amalgam of interacting forces. These include the structure of land values, attraction to shopping and entertainment, the extroversion of the young and the aversion to monotony by the old, a bias to service and professional jobs and the convenience of transportation. To this is added in Goals Plan I the appeal of locations that overlook Lake Ontario.

The persistence of this group — biased towards the apartment — is confirmed by the decline in the rate of natural increase since 1961, the birth control revolution, and increasing drive of women for higher education and professional careers. The small two-breadwinner family, interested in minimal household maintenance, may become much more prevalent.

Goals Plan I provides for the accommodation of 20% to 25% of the population in high density areas (a population density of 60 persons per gross acre) in corridor cities, with the proportion increasing towards the central city.

At the other extreme, it is assumed that about half the population will live in single detached houses. (At present, approximately 50% of new construction within the region is in this form, Fig. 3, page 16.) These then constitute the area developed at a population density of 15 persons per gross acre.

The remainder, 25 to 30% of the population, is in the medium range of 35 persons per gross acre. *Population density in the Goals Plans includes not only ancillary uses such as local streets, schools, shops and parks — all of which are included in gross residential density — but major streets, district shopping centres, scattered industrial uses and other miscellaneous uses.*

The arrangement of densities in descending order from the centres, both within the central city and corridor cities, is intended to suggest the dominant structure of density shaped by the forces described here that exert a pull on higher density forms towards the centre. *This does not imply that these will be monolithic areas without some internal variations in housing forms.* Within the density averages there is ample

scope for diversity. The weight of population towards the centres, however, will be an important support for the subregional centres and places a large segment of the regional population (about five million) within three miles of a transportation node — either within the central city or the corridor cities. The resulting gains in time, convenience and cost should be impressive.

The application of these principles results in *an overall population density of approximately 9,200 persons per square mile of the region's built-up area.*

In comparison, *the Trends Plan has an overall population density range from 7,000 to 10,000 persons per square mile.* The calculated future overall population density in Metropolitan Toronto (based on the draft Official Plan of the Metropolitan Toronto Planning Area) is 11,400 persons per square mile.

In 1964 the overall population density was 8,200 persons per square mile of the region's built-up area.

EMPLOYMENT

The dispersion of employment opportunities throughout the region is indicated rather closely by the distribution of industrial acreage (see Table 3 page 16). Of a total of 110,000 acres, 75% is in the Toronto Sector, 11.5% is in the Hamilton Sector and 7.5%, 4% and 2% are in the Oshawa, Guelph and Barrie Sectors.

With employment, the orientation to the Toronto Sector is not so great at 69% of the total. Accordingly, the remaining sectors contain 31% (730,000 of 2,330,000) of the employed compared with 25% of the industrial acreage.

In the distribution of employment and industrial areas, Goals Plan I does not differ from the Trends Plan in the division between the Toronto Sector and the other sectors. But within the Toronto Sector there is a shift to Oakville and to Guildwood, and a shift from Guelph and Barrie Sectors to the Oshawa Sector where employment is increased from 5.3% of the total to 8.2% in Goals Plan I (see Table 7, page 46).

To meet the demand for steel expansion in the region, the Plan designates a substantial industrial area between Oshawa and Bowmanville south of Highway 401 and served by the C.N. main line to Montreal.

This is immediately west of the site of the St. Mary's cement plant where investigations indicated favourable conditions for a deep water harbour. The relationship of the site to wind directions and to residential areas appears to be about the most acceptable of the entire 100-mile shoreline of the region. Only a 22% frequency of winds could affect urban areas — 5% frequency from the southeast and 17% from the southwest. A steel plant at this location will help to strengthen Oshawa as a terminal city on the commuter rail line.

THE PARKWAY BELT

The Parkway Belt is located approximately five miles north of the Queen Elizabeth Way. At its western end it connects with the Queen Elizabeth Way at Burlington and at the east end it terminates at Highway 35-115 leading to Peterborough, Lindsay, the Kawartha Lakes Area and points north. The western portion links with Highway 401; the eastern portion links with a northern circumferential road along the approximate proposed alignment of Highway 407.

This route becomes the path of the Belt north of Toronto and links the western and eastern portions into a single system. The location of the Parkway Belt, shown on Map 7, in Appendix, indicates that in the northwest it follows the alignment of the airport expressway that is part of the realignment of Highway 27 proposed by the Department of Highways.

The Parkway is an important strategic element in Goals Plan I.

- It gives relief to the Queen Elizabeth Way and a highly effective distribution of week-end and holiday traffic enroute to the recreational hinterland.

- Its breadth of approximately one mile provides a built-in flexibility for the expansion of future transportation capacity, at whatever time and in whatever form it may become necessary without disrupting the basic pattern of urban and regional development.

- The breadth of the Parkway Belt also allows space at selected points for those activities that are directly ancillary to the road such as service centres, motels and conference centres (access to the airport will be excellent from the western Parkway), and for other low intensity activities such as scientific research stations, museums and cultural centres.

The recreational role of the Parkway Belt in a society with more leisure time will be substantial.

- It will provide a convenient and readily accessible outlet for the casual family picnic, as well as space for outdoor sports areas.

- Its scale, extending for about 90 miles, makes it a critical link in the regional park system, lacing together the ravines, valleys, lakeshore parks and the Niagara Escarpment.

- In a number of areas near Oshawa and Lynde Creeks, the Rouge River and Bronte Creek, it merges with the large park wedges that serve as major recreational complexes as well as “boundaries” between corridor cities.

- The central section of the Belt weaves together a number of recreational facilities along its path. These are the Woodbine Race Track; the future Claireville Conservation Area along the West Branch of the Humber River; the Boyd Conservation Area along its East Branch; Pioneer Village at Black Creek; a large private recreational park immediately west of Highway 400; golf courses, west and east of Highway 11, and west of the proposed Highway 404; the valley of the Rouge River with its network of parks and golf courses; and Duffin Creek.

All these features together provide the framework and the physical base for a park system that is appropriate to the regional scale of settlement.

An important additional function of the Parkway Belt is to define and to give tangible expression to the form of the regional city. This is not to be confused with the control of peripheral development: for that there is no substitute for sound land use policies. However, as part of the strategy, it can be an element of implementation of a desired form. The western Parkway Belt, for example, where it traverses Toronto Township defines the line beyond which residential development cannot extend without falling into the noisy flight path of Toronto International Airport.

INTEGRATION OF CORRIDOR CITIES INTO THE REGIONAL CITY

To demonstrate the manner in which a corridor city can integrate with its subregional centre and with the commuter rail express service, a schematic plan for the development of Oakville was prepared. May 10, in Appendix, indicates a structure of residential areas served by local and district centres and linked to the subregional centre by a public transit system. The system operates on a major road network that converges on the centre and the express stop station and its surrounding parking areas.

A possible treatment of the subregional centre is shown in Map 9, in Appendix. The key features, from the point of view of essential links, are the new crossings of Oakville Creek, both north and south of the highway, and the grade-separated crossings of the Queen Elizabeth Way at Trafalgar Road, Sixth Line road and at Kerr Street. These connect on the north side with a new major road serving future residential communities west of Oakville Creek.

At the express stop station the feeder routes have direct access to off-street parking sites that have a surface accommodation for approximately 2,000 cars. If similar arrangements can be assured in each of the corridor cities, the high degree of integration, on which the entire Plan is premised, will be achieved.

COUNTRY RESIDENCE AREAS

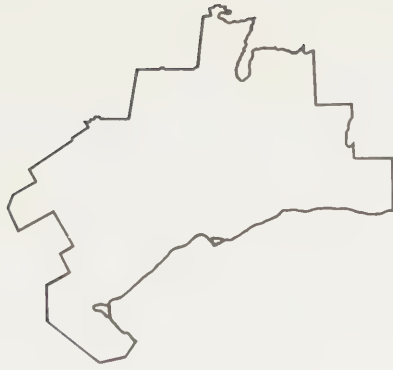
The last feature of Goals Plan I — the ring of country residence areas — indicates the possibilities when the landscape is looked at as a regional resource to serve the diverse needs of a large population.

Areas selected are:

- located in a highland area,
- within 50 miles of Lake Ontario,
- near woods, stream or lake,
- accessible to the central city by main highway and/or rail, and
- linked up with each other by the county and township road network.

Twenty-three localities are shown on the map which best approximate these criteria. Typical of these is Palgrave, 35 miles from Toronto (via Highways 50 and 27) about a mile and a half from the Albion Hills Conservation Park, in rugged wooded country with attractive sites for permanent country residence near Gibson Lake and along the Humber River.

The designated areas will accommodate, in total, from 15,000 to 25,000 people.



CHAPTER 8

GOALS PLAN II

Goals Plan I goes a long way towards attaining the regional goals. Yet inherent within this concept is a fundamental difficulty or strain that must be understood if it is to be overcome — either within Goals Plan I or some other form.

The difficulty arises out of the development of the regional lakeshore city on both sides of the transportation spine on which it depends. This has two effects:

- People and traffic from the larger area north of the highway and railway (except Oshawa which is north of the corridor) must cross them each time they wish to go to the subregional centre to use the commuter rail services;
- The pressure on the transportation lines — particularly the highway — is likely to be very great.

In these circumstances, the welding of the two sides into a single strongly identified urban community may be difficult to achieve and the existing highway may not be able to cope with the very heavy traffic load.

Widening the highway by further increasing the physical barrier between off-lake and on-lake communities might be self-defeating. At best, travelling on the Queen Elizabeth Way of 2000 may be something less than a joy.

GENERAL FEATURES

As a possible answer to the dilemma of Goals Plan I, another concept — Goals Plan II — was developed (Map 11, in Appendix). It is fundamentally a regional lakeshore city with many of the attributes of Goals Plan I. It will be served by the same lake-oriented sewage disposal system.

The difference lies in the attempt to take the pressure off the lakeshore transportation corridor by developing a second tier of cities along a northern transportation corridor. The approximately 3,000,000 people in the rail commuter areas east and west of Metropolitan Toronto are divided between the two tiers.

THE CORRIDOR CITIES

Development along two transportation corridors induces significant changes in the sizes of Goals Plan I corridor cities and of the eastern terminal city of Oshawa. The comparative population figures for principal communities are:

TABLE 5

POPULATION OF CORRIDOR CITIES GOALS PLANS I & II

City	Goals Plan I	Goals Plan II
Hamilton (incl. adjacent Twps.)	695,000	695,000
Burlington	295,000	245,000
Burlington North	—	35,000
Oakville	430,000	260,000
Oakville North	—	180,000
Streetsville	50,000	110,000
Port Credit	500,000	350,000
Guildwood	190,000	168,000
Ajax	280,000	145,000
Whitby	60,000	45,000
Oshawa	430,000	280,000
Malvern	40,000	108,000
Cedarwood	—	38,000
Brock	—	135,000
Audley	—	38,000
Columbus	—	150,000
Bowmanville	40,000	35,000

The total populations in the corridor areas of Goals Plans I and II are approximately the same, but the shift of approximately 700,000 people from the southern to the northern tier not only takes some of the pressure from the Queen Elizabeth Way and Highway 401 but makes possible a new relationship between corridor city and transportation corridor.

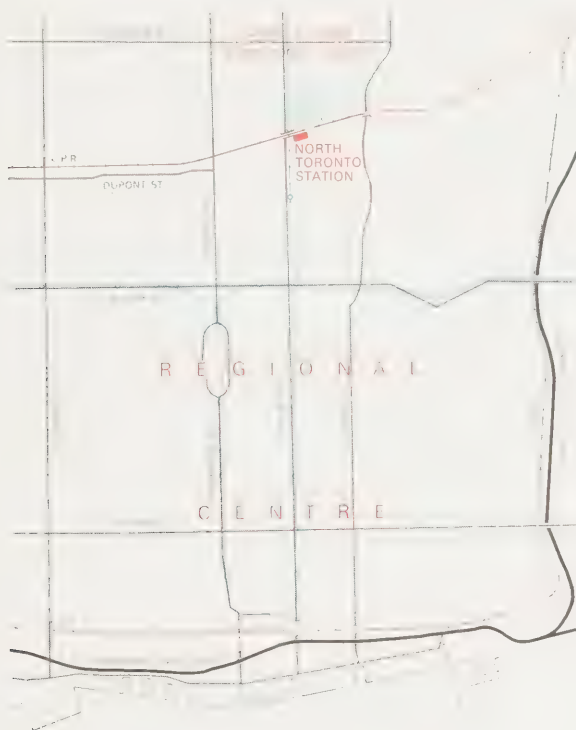
The cities in the northern tier do not straddle the transportation belt. They and their centres are on the north side — having all the benefits of the southern group of cities, except the lakefront, without the handicap of bisecting routes. They will not only work more effectively but the approach to them along the Parkway Belt will be much more attractive than the Queen Elizabeth Way and Highway 401.

It was not possible to shift more than about 700,000 people from the southern to the northern tier of communities. This is because the cities along the lakefront have all the momentum of established growing centres and because of the desire to have as few of them as possible with a population less than 250,000.

The communities north of the Parkway Belt are below the optimum size for corridor cities established in Goals Plan I. The resulting margin for population growth provides scope for expansion — without altering the basic regional systems — beyond the year 2000.

PARKWAY BELT AND COMMUTER SERVICE

One effect of the decreased size of the southern group of cities is that the Parkway Belt is shifted south by one to two miles to an alignment that permits incorporating parts of the existing east-west railway network. This includes the C.P.R. main line, extending from near Oshawa through the jointly operated North Toronto line to the Galt line, up to the point where it turns north towards Streetsville. By the addition of a line from this western point to the C.N. Milton line in Burlington North, the northern transportation corridor provides the basis for a second commuter rail line from Hamilton to the Oshawa area. This line traverses Toronto just north of Dupont Street.



MAP 13

NORTH TORONTO COMMUTER LINE AND STATION

Goals Plan II postulates a second commuter rail express service using a station in central Toronto on or near the old C.P.R. North Toronto Station (the building still stands at Yonge St. near Shaftsbury Ave.). In this way, an important new dimension would be added to the transportation service by linking the eastern and western corridors to the regional centre.

One of the consequences of this station would be to strengthen and draw southwards the subregional centre at Yonge St.-St. Clair Ave. The rail station, which may be linked to the Summerhill subway station, would be highly strategic from the point of view of rapid transit access to much of the regional centre.

The alignment of the Parkway Belt is altered in the northeast where it bends south from the Goals Plan I route to give access to the major urban development focussed on the subregional centre of Malvern.

POPULATION AND EMPLOYMENT COMPARISONS

The population and employment aspects of Goals Plan II, compared to the Trends Plan and Goals Plan I, are shown in Tables 6 and 7.

TABLE 6

2000 POPULATION TRENDS PLAN, GOALS PLANS I & II

	<i>Trends Plan</i>		<i>Goals Plan I</i>		<i>Goals Plan II</i>	
Sector	Population	% of Region's Population	Population	% of Region's Population	Population	% of Region's Population
Toronto	4,210,000	65.5	4,260,000	66.3	4,275,000	66.6
Hamilton	990,000	15.4	990,000	15.4	975,000	15.1
Guelph	480,000	7.5	380,000	5.9	380,000	5.9
Barrie	380,000	5.9	260,000	4.0	260,000	4.0
Oshawa	370,000	5.7	540,000	8.4	540,000	8.4
Region	6,430,000	100.0	6,430,000	100.0	6,430,000	100.0

TABLE 7

2000 EMPLOYMENT TRENDS PLAN, GOALS PLANS I & II

	<i>Trends Plan</i>		<i>Goals Plan I</i>		<i>Goals Plan II</i>	
Sector	Employment	% of Region's Employment	Employment	% of Region's Employment	Employment	% of Region's Employment
Toronto	1,600,000	68.6	1,610,000	69.1	1,620,000	69.5
Hamilton	360,000	15.4	360,000	15.4	350,000	15.0
Guelph	150,000	6.4	115,000	4.9	115,000	4.9
Barrie	95,000	4.3	55,000	2.4	55,000	2.4
Oshawa	125,000	5.3	190,000	8.2	190,000	8.2
Region	2,330,000	100.0	2,330,000	100.0	2,330,000	100.0

TABLE 8

**POPULATION DISTRIBUTION IN TORONTO, HAMILTON & OSHAWA
SECTORS**

TRENDS PLAN, GOALS PLANS I & II

	<i>TRENDS PLAN</i> (High Density Assumption)	<i>GOALS PLAN I</i>	<i>GOALS PLAN II</i>
Toronto Sector	4,210,000	4,260,000	4,275,000
Metropolitan Toronto	2,762,000	2,749,000	2,806,000
Oakville (subsector)	328,000	430,000	464,000
Oakville	328,000	430,000	260,000
Oakville North	—	—	180,000
Streetsville	—	—	(part) 24,000
Toronto Twp.	600,000	550,000	436,000
Port Credit (S. Half Twp.)	500,000	500,000	350,000
Streetsville (N. Half Twp.)	100,000	50,000	(part) 86,000
Vaughan Twp.	180,000	100,000	100,000
Markham Twp.	170,000	100,000	100,000
Pickering Twp.	170,000	331,000	369,000
Ajax	35,000	*(part) 270,000	*(part) 137,000
Audley	—	—	*(part) 18,000
Brock	—	—	135,000
Cedarwood	—	—	** (part) 22,000
Guildwood	—	** (part) 61,000	** (part) 57,000
Hamilton Sector	990,000	990,000	975,000
Hamilton (incl. adjacent Twps.)	695,000	695,000	695,000
Burlington	295,000	295,000	245,000
Burlington North	—	—	35,000
Oshawa Sector	370,000	540,000	540,000
Whitby Twp.	77,000	120,000	120,000
Whitby	37,000	60,000	45,000
Ajax	—	*** (part) 10,000	*** (part) 8,000
Audley	—	—	*** (part) 20,000
Oshawa	—	(part) 50,000	(part) 45,000
East Whitby Twp.	183,000	270,000	360,000
Oshawa	175,000	(part) 270,000	(part) 210,000
Columbus	—	—	150,000
Darlington Twp.	110,000	150,000	60,000
Bowmanville	30,000	40,000	35,000
Oshawa	—	(part) 110,000	(part) 25,000
* remainder in Oshawa Sector			
** remainder in Metropolitan Toronto			
*** remainder in Pickering Township, Toronto Sector			

Differences in the sector distribution of employment are small. The major variation here between the Trends Plan and Goals Plans is in the shift to Oshawa to strengthen the eastern terminus of the transportation corridor.

The population table indicates the shift from the Guelph and Barrie Sectors, under trends assumptions, to the lakeshore sectors in the Goals Plans. Limits to the shift from northern to southern sectors were set by assuming that the 1980-2000 rates of growth in the northern sectors would not fall below their 1964-1980 forecasted rates. The "surplus" population in the Trends Plan above those rates — some 220,000 people — was shifted towards the lakeshore.

The table showing data by sectors obscures the fact that shifts were also made, totalling about 150,000 people, from the northern part of the Toronto Sector beyond Metropolitan Toronto corporate limits to Pickering Township, which contains several new communities. This is shown more clearly in Table 8.

All told, 370,000 persons in the northern part of the region in the Trends Plan were shifted to the southern part in Goals Plans I and II.

In Goals Plan II the Parkway Belt will not, in the same striking manner as Goals Plan I, define the limits of urban growth, but the location of additional new cities considerably extends the range of environmental choice.

Other observations made about key features of Goals Plan I apply with equal force to Goals Plan II. These include the commuter rail service, the implications of population density, the integration of corridor cities into the regional system, the ring of country residence areas, and the diversity of job, residential and leisure opportunities.



CHAPTER 9

GOALS PLAN III

Two of the functions of the Parkway Belt in Goals Plan II were to relieve the pressure on the southern transportation corridor and the strain of integrating urban communities across a major highway. While the strategies of Goals Plan II will undoubtedly achieve some relief, that effect definitely has its limits due to both the proximity of the second-tier cities to the lakeshore tier, and the road links between the two corridors. The larger and more highly evolved development along the southern transportation corridor, together with the attraction of the lakeshore, will exert a strong pull on the second-tier communities.

To provide more certain and effective relief it is necessary to explore the possibilities of a more completely separated Parkway Belt. Goals Plan III (Map 14, in Appendix) presents such an alternative.

In this concept the northern transportation corridor — the Parkway Belt — is shifted further north to the alignment of the C.P.R. line to Galt on the west, and along the C.P.R. Peterborough line (and by restoring six miles of abandoned line) to Port Perry on the east.

The highway component of the corridor is provided by Highway 401 and by an extension of the proposed northern peripheral road, (Highway 407). The distance between rail and road, approximately one mile, forms a broad open area with functions similar to the Parkway Belt in Goals Plan II.

The population of approximately 500,000 which is shifted to this tier (on the same basis as Goals Plan II) is distributed into seven principal urban areas ranging in size from 50,000 to 100,000 for the terminal cities and into five smaller communities of 20,000 each.

The cities include an enlarged Milton (50,000) and Streetsville (63,000) and Port Perry, which forms the eastern terminal city. On the west the Parkway Belt terminates at Galt which by 2000, on the basis of recent growth rates, will be part of an urban complex, including Kitchener and Waterloo, of about 400,000 people.

Under the transportation premises set out in Goals Plan I (a maximum speed of 100 miles per hour and express stops at ten-mile intervals) this complex, at 56 miles from the North Toronto Station, will be beyond effective daily commuting distance to work. Nevertheless, the greatly reduced time-distance will have the effect of substantially increasing general-business and leisure-time trips to and from Toronto, and this important area will exert its own pull of traffic along the corridor.

While Kitchener-Waterloo-Galt will in this way make a substantial impact on corridor traffic, affecting the daily volumes and load patterns, Goals Plan III postulates the establishment of a new centre at a distance of approximately forty-four miles from Toronto which will be, like Hamilton, at the western limit of the daily commuting range for the journey to work. That centre will be at the junction of Highway 6 and the C.P.R. Galt line, approximately two miles south of Highway 401.

The basic principles operative in the Parkway Belt and in Goals Plans I and II are assumed as well for Plan III.

DISADVANTAGES

Goals Plan III has not been elaborated to the detail of the first two Plans because it is apparent — even at this generalized level — that it raises certain difficulties which make it, as a concept, highly problematic.

The first difficulty arises out of the fact that the greater part of this system of cities is beyond the presently planned Lake-centred sewage disposal systems: only two of the seven principal centres (Streetsville and Malvern) fall within it. To service the other cities will require the construction of a number of sewer and water trunk lines to Lake Ontario.

At the western extremity twelve-mile lines are required; on the east, sixteen miles. A total of approximately sixty miles of such line for each utility will be required.

This will impose a heavy burden of extra cost on the regional city and the area traversed by the lines will be subject to strong, perhaps irresistible, development pressures. The goal of minimizing public costs will be compromised and the regional form will be unstable.

This is a basic hazard inherent in developing the potentials of any of the other radial lines such as the Brampton-Georgetown-Guelph line. The further the distance from the lake the greater the burden of extra utility cost.

The shift of a substantial population from the lakeshore axis carries with it the assumption that an adequate number of jobs will also be shifted to the path of the alternative tier.

This prospect is difficult to contemplate. The cities along the Parkway Belt in Goals Plan III are either not close enough to attract overflow employment from Toronto-based and lake-oriented growth or are too close to compete effectively with the established, growing, more favourably located and more inexpensively serviced cities to the south.

Any real alternative to the lakeshore regional city will have to avoid this dilemma. And this implies a pattern of development which represents a bolder departure from the lakeshore solution.



CHAPTER 10

GOALS PLAN IV

At this point, to relate regional goals to this final concept, it is necessary to recall the main features of the regional model described in Chapter 5. Briefly, these are:

- A regional centre that, on the basis of unique functions, is the focus of the entire region.
- Subregional centres providing a wide range of general services that are the focal points of a number of constituent cities.
- Work places distributed to serve centralizing, decentralizing and specialized activities.
- A form that is sensitive to both landscape endowments and the value of productive farmland.
- A form that is consistent with certain basic trends leading to increased mobility, flexibility in both home and work locations, more multiple housing and country living, and expanded leisure and education time.
- A transportation system that is geared to a high level of accessibility from residential communities to major locations of work, service and leisure activities.

It has been demonstrated that the Trends Plan can be shaped into a regional lakeshore city — Goals Plan I or II — that is a good approximation of the foregoing model.

While a regional form rooted in strong trends has obvious advantages, it is important in an inquiry of this nature to explore any other form inherent in the region that may fulfil the regional goals. Emphasis is given to this effort by the vulnerability of the lakeshore solution — the pressure on its major transportation corridor.

Goals Plan IV (Map 15, in Appendix) assumes the characteristics of a large central city linked radially by road and rail to four other cities that are large enough to generate a measure of local employment and strong subregional centres.

At a distance of 50 to 60 miles from Toronto they avoid the pitfalls of the new cities in Goals Plan III, which are not close enough to attract Toronto-based growth and are too close to develop an independent economic base.

The four cities, which together would assume a satellite form in an arc northwest of Toronto, are Guelph, Orangeville, Alliston and Barrie. Each has a target population of 250,000.

Growth on this scale requires a change in the population premises of the lakeshore Goals Plans. Of the regional population of 6,430,000, approximately 22% are in the Guelph and Barrie Sectors compared to 10% in the lakeshore Goals Plans. However, there remains a substantial lakeshore settlement of nearly 5,000,000 people from Hamilton to Oshawa which requires transportation service of the order specified in Goals Plan I.

ADVANTAGES

Two major regional conditions influence the form of Goals Plan IV.

The raising of planning sights to the larger regional scale brings into focus the fact that the region with which we are concerned is between two of the Great Lakes, and that one of these, Lake Huron, has not had any significant effect on the pattern of urban development. In a period when the demands on Lake Ontario are very great and the battle for cleaner water is being waged, Goals Plan IV would deflect a population of nearly 1,000,000 from the Lake Ontario watershed and reach out for the clean water of Georgian Bay.

An essential part of the strategy of this plan is the construction of a water trunk line and attendant treatment facilities from the Bay to Barrie and then on to the three other cities. This will have the effect of removing present restraints on urban growth arising out of limited or dubious water supply. At the same time, reliance on Georgian Bay water has determined the selection of the arc cities in the area northwest of the Hamilton-Toronto axis. These are located at a distance from the Bay and in a geographic relationship to each other that minimizes the length of unused water trunk line.

The trunk facilities designed to meet the needs of the arc cities could have far-reaching repercussions on the dynamic Kitchener-Waterloo area. This is served from ground water supplies that, as far as can now be determined, will not be sufficient to sustain the present high rate of urban growth. This underpinning of growth in an area that already has a strong economic base will greatly enhance the role of a Guelph radial corridor.

The second major regional influence on the form of Goals Plan IV is the existence of the framework of radial highway and rail systems focussing on Toronto. The skeleton of the transportation system already exists for linking arc cities to the central city:



Guelph is connected by the C.N. London line via Kitchener, and by Highways 6 and 401; Alliston by the main C.P.R. line to Sudbury, and by Highways 89 and 27 or 400; and Barrie by the main C.N. line to western Canada, and by Highway 400.³² These transportation lines back up the northwest orientation enforced by the use of Georgian Bay water.

The two regional influences working together produce a pattern of four cities about twenty miles apart that can be connected by an expressway making of the arc cities a single interacting complex of one million people. The northwest bias of the arc cities is further intensified by this last feature.

Extension of the arc eastwards would not be desirable because the location of a new city east of Lake Simcoe would require that a highway be built across the productive Holland Marsh agricultural district with possible serious disrupting effects.

Goals Plan IV can be understood most clearly when compared with the features of the regional model. The radial form of transportation routes focussing on the Toronto centre strengthen its role as the specialized business, cultural and government centre of the region.

Each of the arc cities will contain subregional centres which, because of the distance from the Hamilton-Toronto-Oshawa axis, will tend to develop fully the potentials of their market.

The arc cities do provide some opportunity for the more “footloose” type of activity, both in services and in manufacturing. The University at Guelph provides a base for research-oriented activities; the amenities of the Lake Simcoe area and of Georgian Bay will attract to the arc cities both routine office activities that do not need to be at or near the regional centre, and head offices of national firms for whom an attractive setting and an environment with high recreation appeal are of prime importance.

Industrial development will be influenced favourably by the fact that three of the proposed cities — Barrie, Guelph and Alliston — are on main rail lines and are served by both railway companies. Plants at any of the cities will have the anchor of the arc complex of one million people and, at the same time, will have access by rail and road to the whole regional market, as well as the national market.

The potential here is indicated by some of the firms presently located at the selected cities producing power transformers, electronic equipment and cigarettes at Guelph; electrical appliances, tires and cosmetics at Barrie; radiators and polyethylene bags at Orangeville; and food products and hospital supplies at Alliston.³³

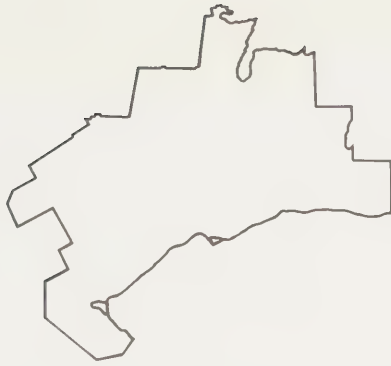
The arc cities are strategically located for access to the Province’s great recreational hinterland stretching from the Bruce Peninsula to Algonquin Park. Each is set in an environment of high scenic appeal as indicated by the Lake Simcoe summer colony development near Barrie; the fine provincial park (747 acres) on the Boyne River, two miles west of Alliston; the Hockley Valley School of Fine Arts and Crafts, and the skiing, near Orangeville; and the rolling wooded landscape around Guelph.

DISADVANTAGES

Daily commuting to work is attainable based on a non-stop rail express service. This way, all of the arc cities would be within thirty-five to forty minutes of the regional centre at Toronto. It would place less of a strain on the system, however, if the arc cities developed a high degree of independence in employment, and if transportation to the central city was geared to trips on a less demanding schedule — the general business, shopping and leisure-time trips.

The development of an independent employment base for the arc cities is critical — the indispensable condition — to Goals Plan IV. It would take a substantial effort by private enterprise and government to shift enough new employment (approximately 140,000 more than the year 2000 Trends Plan employment of about 245,000 in the Guelph and Barrie Sectors) to sustain the assumed population increase. In the face of the momentum of growth in Toronto and related lakeshore areas the prospects of achieving a shift of this order is not very promising.

The greatest difficulty posed by the satellite type of development in the Toronto region is the disposal of sewage. The region does not contain rivers of sufficient flow to act effectively as a base for disposal systems for large population centres. An innovation in sewage disposal would be necessary to attain Goals Plan IV.^{34, 35}



CHAPTER 11

A POSSIBLE EVALUATION TECHNIQUE

This chapter cannot and makes no final judgement on the regional concepts that have been presented in this report. The issues before us are so complex that they do not lend themselves to absolutes. The course adopted here has been to identify the tendency of the various Plans to express the regional goals which together approximate the regional ideal.

The method of evaluation reflects this approach: varying intensities of color are used in the accompanying chart to indicate a weak, moderate or strong realization of the regional goals.

The chart lists the twelve regional goals in order of their appearance in Chapter 5. Broad results of the evaluation stand out at a glance:

- Goals Plans I and II are the strongest; Trends Plan-Low Density Assumption, the weakest.
- Trends Plan-High Density Assumption emerges stronger than Goals Plan III, reflecting the fact that it is the regional lakeshore city that suggested the form of Goals Plan I.
- The judgement on Goals Plan IV is uncertain. Its strengths are offset by its shortcomings.

Without repeating details already covered, some indication of the bases for the judgements will clarify the relationship of the Plans to the goals. It will be helpful now to recall the criteria used in Chapter 5.

Goals Plan I shows a slight overall edge on Goals Plan II mainly because the Parkway Belt performs the function of delineating the edge of development. The definition of urban limits achieved in this way helps the many-sided strategy of attaining the land goals — the maintenance of both recreational-environmental assets and productive agricultural land.

Goals Plan II, on the other hand, has the advantage with environment goal 4, as its more dispersed pattern of cities separated by parkland and open country makes it less vulnerable to air pollution.

AN INITIAL EVALUATION OF ALTERNATIVE PLANS

REGIONAL GOALS	ECONOMIC STRUCTURE	LAND			ENVIRONMENT		ACCESSIBILITY		COST		CHANGE		
		1	2	3	4	5	6	7	8	9	10	11	12
TRENDS PLAN (High Density Assumption)													
TRENDS PLAN (Low Density Assumption)													
GOALS PLAN I													
GOALS PLAN II													
GOALS PLAN III													
GOALS PLAN IV													

ATTAINMENT OF REGIONAL GOALS



WEAK



MODERATE



STRONG

ONTARIO DEPARTMENT OF MUNICIPAL AFFAIRS
COMMUNITY PLANNING BRANCH

FIG. 5

REGIONAL GOALS

1. To develop in a manner consistent with the locational and space requirements of the region's major economic activities.
2. To preserve the unique attributes of the regional landscape.
3. To minimize the urban use of productive agricultural land.
4. To minimize the pollution of water and the atmosphere.
5. To facilitate and maintain a pattern of local communities.
6. To minimize time-distance for the essential population movements between major functional areas.
7. To maximize opportunities for using specialized services and facilities.
8. To minimize the cost of moving goods within the region.
9. To minimize the cost of essential public services.
10. To develop in a manner consistent with the needs arising from long term population trends, particularly future growth and changes in age, household size and composition.
11. To develop in a manner consistent with emerging and probable future technological innovations, i.e. facilitates, adjusts to, and receives the benefits of such possibilities.
12. To develop in a manner consistent with the needs arising from social changes, based on future economic and technological developments, e.g. changing patterns of leisure.

A look at the reasons for weak ratings helps clarify the method of the evaluation and brings the differences between Plans into sharper focus:

Trends Plan-High Density Assumption has a weak rating on land goals, because the indecisiveness of rural land use planning makes it possible to pierce the agricultural and recreational hinterland at many points.

It is weak on environment goal 5 because of the instability of its pattern of sub-regional centres and communities. These comments also apply to Trends Plan-Low Density Assumption.

Trends Plan-Low Density Assumption does not show up strongly on the accessibility goals because large peripheral low density areas cannot be effectively served by high-speed public transportation, and because the system of sub-regional centres and transportation nodes at the regional scale is weak.

New water and sewer trunk lines from the outer areas of the northern part of Trends Plan-Low Density Assumption (e.g. the Markham area) to treatment plants at Lake Ontario make it a high-cost pattern (goal 9).

Trends Plan-Low Density Assumption recognizes less strongly than the other Plans the rising demand for multiple forms of housing and its spread out character imposes great difficulties in attaining changing technological potentials in transportation (goals 10 and 11).

Goals Plan III has a weak rating on the economic structure goal because of the improbability of attracting sufficient industrial or service employment to its cities along its Parkway Belt.

The land goals will be difficult to achieve because of the pressures for development created by long sewer and water trunk lines to the Lake. The land between the northern and southern tiers of cities would tend, in nutcracker fashion, to be squeezed by the two development paths.

Goals Plan III would have even higher trunk line costs (per person served) than Trends Plan-Low Density Assumption, and hence does not conform to cost goal 9.

Goals Plan IV, highly dependent on Georgian Bay water which is twenty-five miles from the closest satellite city, is also weak on this point.

It is weak on land goal 3 because of the excellent agricultural land lost to urban use around Orangeville and Alliston.

This evaluation represents only one view of the relative merits of alternative plans in relation to the regional goals. The method provides a framework for developing more objective and sophisticated tests, or for achieving a consensus on a number of judgments by individuals and groups with different background and experience.

The strong "performance" of both Goals Plans I and II suggests the need for further study of these concepts to establish more certainly their contrasting strengths and weaknesses.

Of particular interest will be the comparative transportation efficiency of the two Plans. The study in this first stage indicates that a region developed along the lines of Goals Plans I or II holds out great promise.

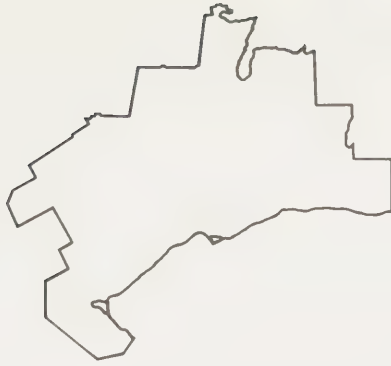
Ultimately, the test of a Goals Plan will be the quality of life that it will make possible for the metropolitan man of the twenty-first century. He will have a wide choice of housing locations ranging from the semi-rural to the intensely urban and, in most cases, he will not have to suffer the penalty of a long and tedious journey to work.

This man can live a quiet life and find all the facilities and services he requires for his daily comfort and edification close at hand including a community college for his 18-year-old son. Or, if he is interested in grand opera or hockey he can, on any night — whether he is in Ajax or Oakville — travel to the regional centre and then home again without risking night-time highway travel.

If he has a small family he may choose one of several locations where high-rise apartments are set in a landscaped area overlooking Lake Ontario. If his family is large, he may seek out a house somewhere near the 90-mile Parkway Belt or in one of the new cities, taking advantage of the opportunity to get out into the open on a hot summer's night or to head north for a three day weekend with no more than five minutes of city driving ahead of him.

Should the resident be an executive coming to establish a branch of an international enterprise producing computer equipment, typewriters or inflatable houses, he may decide to locate his plant in one of the enlarged cities where land is relatively cheap and where there are good industrial sites within a mile of a highway and a commuter-rail-express stop station.

For his national office and sales headquarters he may find a place on the thirtieth floor of a skyscraper trade centre, accessible from all parts of the central city, across the street from the computer utilities office, close to the new Union Station and transportation terminal with its helicopter service to the International Airport and hovercraft service across the Lake to New York State.



CHAPTER 12

IMPLEMENTING THE REGIONAL PLAN

The central purpose of the regional development phase of MTARTS is the charting of a sound long-range development course. This is an essential foundation to both the planning of, and investment in, transportation facilities, whether considered an obligation of imaginative and responsible leadership or simply the prudent thing to do before the commitment of large capital funds.

The fashioning of a valid concept of regional development is manifestly a difficult and complex task. The progress that has been made must be regarded as tentative and subject to further study. It does indicate, however, that some forms of development have substantial advantages of economy and convenience over other forms which might result from uncoordinated development. At some point a decision must be made about what form is most advantageous.

At the same time a judgement must be made about whether, and by what means, the selected form can be achieved. For unless the means are available to shape development and redevelopment in the desired way, no plan, however well conceived, can succeed. Consideration of this matter is crucial to the success of the entire MTARTS program.

Not only must a regional plan be a good plan and capable of implementation, *it also must be available as early as possible so that all the affected agencies may have the benefit of its guiding and coordinating influence*; so that all the various elements of development and servicing may be made consistent with one another and with the general intent and purpose of the Plan.

Since private investment in development takes place within the framework of public policy and action, it too would be guided by an adopted regional plan. Thus, although this study was initiated primarily to consider transportation, such a plan would provide the same useful background and guidance for many other activities that shape the form and quality of regional environment.

Fortunately, this is a time when the Government of Ontario has given clear enunciation to the principles of regional planning and development it wishes to pursue. Two cardinal principles stated by Prime Minister Robarts in the Ontario Legislature (April 5, 1966) are of particular relevance to the problem before us.

The first is the central position in future policy of regional development plans. The Prime Minister stated that it is the *“government’s role to ensure that regional land use planning is undertaken so that the regions of the province are developed according to an orderly plan which would include environmental and economic considerations”*. He made it clear that planning for transportation facilities was an integral part of regional planning.³⁶

IMPLEMENTATION BY PROVINCIAL POLICIES

The second principle is the aim of systematically relating government programs to regional objectives. *“Much of Ontario’s regional development program will be accomplished by a thorough-going coordination of the programs, policies and spending of government departments and agencies.”*

These principles and their administrative implications indicated by the Prime Minister throw light on the path we can tread towards the implementation of a regional plan for the large, multi-centred region of Toronto and area.

The first possibility is to explore to the limit the ways in which the established and operative government programs can, working in harmony, be a force for attaining the selected regional plan.

To illustrate the promise and relevance of this approach, provincial activities will be considered in relation to some of the key features of Goals Plans I and II.

The features of these Plans that are critical, on which all other features depend are:

- the orderly dispersion of manufacturing and service employment into the lakeshore cities;
- an express commuter rail service between Hamilton and Oshawa;
- strong subregional centres at selected locations;
- a Parkway Belt that is a second transportation corridor;
- a network of waterfront parks;
- the preservation of natural recreational areas and productive farm land outside designated development areas; and
- the initiation of large-scale urban growth at relatively small existing centres or at entirely new locations.

RELEVANT GOVERNMENT ACTS, AGENCIES AND POLICIES

For each of these requirements there is a provincial policy or a combination of policies that is relevant and could exert a substantial influence. This does not imply that action at municipal and federal levels is not important — only that the leadership of the Province in certain fields is critical and that there is much potential for creative leadership within the bounds of existing statutory authority.

The Prime Minister has stated that the *“Government accepts the responsibility of guiding, encouraging and assisting the orderly and rational development of the province.”* In effect, this suggests a broad provincial strategy for the distribution of

employment and population to be formulated by a series of interrelated regional development plans. The regional plan that will emerge from this study could fit into this strategy. If regarded in this manner, then the Government could influence the economics of development through such means as:

- the promotional, information, research, arrangements and branch plant services of the *Trade and Industry Branch* of the Department of Economics and Development;
- the loan policy of the *Ontario Development Corporation* relating to both working capital and initial financing for private firms;
- the strategic use of the authority of the *Ontario Water Resources Commission* to construct (or not to construct) with provincial finance, regional water supply and water pollution control facilities. This, for example, could play a significant part in establishing the economic viability of the new cities along the Parkway Belt in Goals Plan II. The *Hydro-Electric Power Commission* has similar authority for constructing power lines;
- the direct initiation of development to fulfil established government responsibilities, as illustrated by the Sheridan Park Research Community — a complex that will play an important role in the growth of a Port Credit city of 350,000 to 500,000 people by the year 2000.

The establishment of an express commuter rail service between Hamilton and Oshawa depends directly on provincial action through the application of the *Commuter Services Act* (1965). By this measure, the Minister of Highways can enter into agreements with the CN or other corporations or individuals to establish and/or operate “commuter services to serve any one or more areas in Ontario”. Funds and authority are provided to acquire the necessary land, equipment and rolling stock.

One important measure that could be taken to reinforce the selected subregional centres in the Goals Plans would be to provide the indicated high-speed commuter service and to establish the express stop stations at or near the selected locations of the centres. Such action, it is anticipated, would be critical in strengthening the growth of the subregional centres.

Other direct ways in which the Province could effect the growth of subregional centres is through grants to community halls, arenas, etc. under *The Community Centres Act*, and the siting of community colleges and universities by the departments of Education and University Affairs.³⁷

The Parkway Belt in Goals Plans I and II could be obtained by direct provincial action through a combination of acquisition of rights-of-way for highways, for parts of the proposed commuter rail lines, and for land for a number of provincial parks of the small 20-to-30-acre type such as Sun Valley Park near Dunbarton (at the Liverpool interchange off Hwy. 401) and Waltona Park near Newcastle (at interchange 78 off Hwy. 401). Authority also exists under the *Parks Act* to acquire the waterfront parks which are an essential feature of the lake-oriented regional city.

The acquisition of flood plain land and related wooded valleys by the *Metropolitan Toronto and Region Conservation Authority* is a process, initiated and partly financed by the Province, that has already produced 14 parks in the region. The continued establishment of recreation areas will be important in the strategy of implementing a regional plan.

The *Canada Land Inventory* initiated under the Federal-Provincial A.R.D.A. program has provided the basic tool — the Agricultural Land Capability Inventory — for identifying the productive land in the region. The Province has a large leadership role to play in protecting these lands because of its general responsibilities under *The Planning Act* and its approval authority for subdivisions, official plans and zoning by-laws.

In 1966, the Minister of Municipal Affairs made a statement of government policy on urban development in rural municipalities which has the greatest relevance to the Goals Plan objective of preserving productive farm land outside designated development areas.³⁸ He set out these four guide lines:

- Year-round urban residential development should take place in municipalities that have adequate administrative organization to cope with urban problems and that are equipped and willing to provide the necessary services.
- Such development will be integrated in an existing urban community or a new urban community, developed in accordance with an official plan.
- There is reasonable assurance that an effective demand for such development exists or will exist as development proceeds.
- Appropriate land use (zoning) regulations are in force or will be in force by the time the development is ready for marketing.

The consistent application of these principles in the MTARTS region would go a long way towards achieving the rural land use objectives of the Goals Plan for both agricultural and recreational land.

There is an additional provincial responsibility affecting the regional landscape that will need to be related to the regional plan. That is the authority of the Department of Mines under *The Mining Act* to control sand and gravel removals on Crown Lands and from the beds and beaches of lakes and rivers, including the inspection of shore erosion in relation to removals.

NEW CITIES

One of the most challenging tasks posed by Goals Plans I and II (particularly Goals Plan II) is the creation in the whole cloth of a number of substantial new cities — such as Columbus (150,000 population) and Brock (135,000) in Goals Plan II — or the achievement of a greatly accelerated rate of growth in existing centres such as Port Credit and Ajax. This task is made particularly difficult because much of the indicated growth would take place within rural municipalities and outside the jurisdiction of planning agencies equipped to deal with urban development.

The growth forces along the southern transportation corridor are strong. But the achievement of development in the right place at the right time and in the right form is a complex and demanding undertaking that will require the most careful planning.

This job has four critical elements — planning, finance, timing and administration:

- Each new city (or large scale new development added to a relatively small existing community) requires a development plan carefully worked out to meet both local and regional needs.

- Capital funds will be needed for the initial investment in basic utilities, roads and community facilities in advance of development and of the arrival of tax-paying residents who will eventually sustain the community's growth.
- Timing is another critical element for it is obvious that not all areas can be developed simultaneously.
- An administrative process needs to be set up, leading from the initial planning state through construction and the first stage of growth, to locally controlled administration when the city becomes a going concern.

Where new development occurs within an urban municipality or urban-based joint planning area, or within the jurisdiction of the Metropolitan Toronto Planning Board, these agencies would be the most logical to supervise the many-sided tasks of new city building. But where this is not the situation some other solution will have to be found.

Within the established practice of the provincial administration is an "institution" that might lend itself to the job of creating new cities. This is the Townsite Committee, an inter-departmental group under the chairmanship of the Director of the Community Planning Branch, which over the years has done the ground work — in planning, financial policy and administration — for the creation by Government initiative of new towns arising out of the development of northern resources.

The basic operating principle has been to bring together senior personnel from those departments such as Municipal Affairs, Highways, Education, Mines, Lands and Forests, which together have the statutory authority to initiate, support and, in part, provide the physical framework and community services for a new town. The Committee has been active for over 12 years and has operated with conspicuous success.

Assembling the necessary provincial functions in this way offers some interesting possibilities. For example, the creation of the new city of Columbus in East Whitby Township as proposed in Goals Plan II could be supervised by a "townsite committee" carefully constituted to represent essential functions in this way:

Department of Municipal Affairs	planning and municipal finance
Department of Economics and Development	economic base
Ontario Housing Corporation	housing and land assembly
Ontario Water Resources Commission	sewer and water services
Department of Education	schools and libraries
Department of Health	health services
Ontario Hospital Services Commission	hospitals
Department of Highways	highways and major roads

While the organizational principle involved in this suggestion is identical to that applied in the creation of northern towns, the scale of the undertaking is very different. Success of this approach would depend on more staff within the administration specifically assigned to the task.

This suggests that *normal* provincial action could materially influence development in the MTARTS region. Its use in a purposeful way to achieve a desired regional pattern involves a formidable task of coordination. Effectiveness will depend on consistent and systematic coordination among departments along the lines set out by the Prime Minister — extending from himself as Chairman of a Cabinet Committee to a Departmental Advisory Committee of senior civil servants to a Regional Advisory Board representing officials with responsibilities within the region.

To complement and extend provincial action it is essential that local, metropolitan and federal programs pull together to attain regional objectives. For example, the Land Assembly provisions of the National Housing Act, through which 1,600 acres have been assembled at Malvern (one of the designated sites for new development in Goals Plans I and II) could be a powerful instrument in creating the new urban areas along the transportation corridors. Local and metropolitan action on zoning, major roads, utilities, public transit and the location of community services could have a decisive effect on the pattern of subregional centres.

COORDINATION OF LOCAL AND SENIOR GOVERNMENT ROLES

While the coordination of existing government functions could accomplish a great deal, it is only part of the answer to the problem of implementing a regional plan in an extensive, multi-municipal region. *Our society is such that a pervasive instrument like a regional plan, affecting so many areas and interests, has little chance of success unless the people affected have an opportunity to participate in its formulation, in its creative evaluation over the years and in its implementation.* By the same token planning requires a statutory base rooted in the processes of democratic government. The manner in which these principles, i.e. local participation and local democratic administration, can be embodied in the implementation of a regional plan is suggested by the form and structure of the Plan itself.

Goals Plans I and II are an attempt to achieve a high degree of integration of what have been called (in Chapter 3) “the regional elements” — the centres, residential districts, industrial areas, major recreational areas, the transportation network, etc. — while the overall concept depends on the achievement of strongly identified separate entities with richly diverse centres.

Regional concerns are interwoven with the local and are expressed in the size, location and function of cities and of subregional centres, in the orientation of local transit systems, the location of transportation corridors, the size and functions of the Parkway Belt, the use of the waterfront, etc.

The dual nature of the Goals Plans suggests, as a model, neither the supercity nor the congeries of self-contained, internally balanced urban communities — but something in between. From the point of view of implementing a regional plan, there is a need to define the elements that are crucial — the inherently regional matters — and to establish for the entire region an effective jurisdiction.

This should be done under provincial statute and with provincial participation, and can be the vehicle for the involvement of the constituent municipalities (corresponding to major parts of the regional complex) in the preparation, adoption and implementation of a regional plan.

POSSIBLE REGIONAL ORGANIZATIONS

It would appear that two types of solutions are inherent in present conditions.

One approach is to fuse the present and potential functions that must operate at the large regional scale into a single regional administration.

Present functions are: *resource conservation*, including regional parks, as represented by the Metropolitan Toronto and Region Conservation Authority and the Department of Lands and Forests; *transportation*, including the operation of the experimental rail commuter service by the Department of Highways; *economic development*, the concern of a recently formed regional development council in the four-county (Halton, Peel, York and Ontario) Central Ontario Region.

Potential regional functions are *planning* for the stated broad purposes; *control of air and water pollution*; *water supply*; and *research*, the marshalling of basic data required for planning and administration of a great variety of activities — from tree nurseries to school systems — within the region.

The second possible approach is the creation of a special agency with a provincial-municipal base for the express purpose of large scale regional planning. A highly suggestive example of this is the District of the Region of Paris set up in 1961 to prepare and put into effect a plan for the year 2000 in a large district (10 times larger than the present metropolitan Paris) which includes 1,315 communes. Its specific functions are:

- to coordinate government action in the areas of planning and public improvements;
- to study the problems that arise on these subjects in the Paris region;
- to contribute financially to solving these problems; and
- to propose overall plans with a view to developing a comprehensive town and country planning policy for the Region.

Its organization includes a Board of Directors composed of local elected representatives, a General Delegation which can exercise powers delegated by many Ministries of the French Government, and a Consultative Economic and Social Council, an advisory body representing key groups in the area from business, labour, economic organizations and the professions.

Since this institution has been fashioned in response to the same kind of challenge that we face in the MTARTS region, it merits closer examination and study.³⁹

Whatever type of solution is adopted, it must complement and extend our present means of formulating government policy both at the provincial and municipal level.

Authority and procedures are established and in operation under The Planning Act and other Acts by which individual municipalities, and groups of municipalities, may prepare, adopt and implement official plans based on the physical, social and economic conditions affecting the development of planning areas. These plans, when given provincial approval, guide all subsequent development.

Areas may be of a size and composition that would permit regional planning and provision is made for consultation with all affected government agencies before official plans are approved. However, regional plans require the full participation of both the local and provincial governments and apparently the present situation has not produced the necessary interest and participation. Only where there is a local administrative unit having authority over a large area and ample resources can a plan which might be called regional be prepared.

At the provincial level a great deal of work has been done and a considerable degree of interdepartmental cooperation developed in carrying out studies for specific purposes.

The Department of Municipal Affairs has for years been conducting land-use studies throughout the province. The Department of Highways has used this material to determine highway needs. The O.W.R.C. has had extensive engineering studies made for its guidance. The Department of Economics and Development produces reports based on studies of the economy of the various parts of the province.

The Metropolitan Toronto and Region Transportation Study is such a special study in which, because of the size of the area and the involvement of a greater number of government agencies, together with Metropolitan Toronto and other municipalities, it has been possible to come nearer to the preparation of a regional plan which considers all of the factors involved and therefore might be helpful as a basis for government decisions in fields other than transportation.

Three factors have inhibited successful regional planning under The Planning Act.

- One is the great number of small municipalities into which local government is fragmented, resulting in divided authority.
- Another is the difficulty experienced by a local planning authority in ascertaining, coordinating and applying the policies of government departments affecting various elements of development with which they respectively deal.
- The third is the fact that any cooperative effort requires strong leadership which, it would appear, can be given only by the provincial authority.

Recent studies carried out under the direction of the Department of Municipal Affairs, notably those in the Ottawa, Niagara and Peel-Halton areas, may lead the way to stronger municipal units of a size and structure more appropriate for serving as the local administrative arm of regional planning.

The establishment of the Metropolitan Toronto and Region Transportation Study and the cooperation of all the government agencies in this project give assurance that, with appropriate organization and support, the resources of all agencies can be applied to this strengthening process. This would appear to be in accordance with present government policy to assume as one of its "*broad responsibilities . . . the task of directing and coordinating the preparation and implementation of regional development plans*".



CHAPTER 13

FURTHER ACTION

PURPOSE OF THE REPORT

As was stated, the immediate purpose of this regional development study is to provide the Metropolitan Toronto and Region Transportation Study with a forward look at the emerging pattern of regional growth and to present concepts for development to the end of the century.

In addition to this purpose, it is also a first step towards the evolution of a regional plan as a guide to the general development of the area. A plan, if supported by government policy and incorporated in local municipal plans, would be advantageous in many ways — not the least of which would be to support the implementation of the transportation recommendations growing out of the Study by maintaining a balance between the transportation facilities and the development which they serve.

The urgency for a regional plan cannot be stressed enough. In an ever-growing region, decisions and actions requiring capital expenditure are continually being made. Many of these would be favourably affected by the adoption of (or by the intent to adopt) a regional plan.

NEED FOR A REGIONAL PLAN

A regional plan based on competent study would be a *guide for both public and private development*. For example:

- a more convenient and economically serviced and aesthetically pleasing pattern of development could be achieved than would otherwise occur;
- by developing in accordance with an agreed and continuing plan, not only can harmony between its various elements be obtained but these relationships can be maintained;
- local official plans cannot be soundly based unless there is an agreed regional structure into which they can be fitted;

- public agencies such as the departments of Highways, University Affairs and Public Works, the Ontario Water Resources Commission and the Hydro-Electric Power Commission would be provided with a basis for co-ordination as to the direction and timing of large expenditures for public works;
- ministerial approvals under The Planning Act, such as the approval of official plans and plans of subdivision, would have the benefit of an agreed regional pattern;
- private investment would be assisted by having a knowledge of the publicly recognized framework in which it can operate; and
- future transportation facilities would be supported by a regional form and structure for which they were designed.

SUGGESTIONS FOR ACTION

This report sets out, for the consideration of the Metropolitan Toronto and Region Transportation Study, the results to date of the research that has been carried out under its instruction on the future development of the region. It is believed that the concepts for development in the year 2000 described here are as valid as may be determined in the available time.

In dealing with so complex a problem there is naturally no absolute and final answer. The results can always be profitably tested and refined by further study. It is of utmost importance that the goals and concepts be subjected to careful scrutiny by every interested agency. It is especially desirable that they be assessed more fully as to their suitability for efficient transport systems.

Based on present results, the following action is suggested:

- All public and private agencies involved or interested in the development of the region be encouraged to comment on the report.
- A choice be made of concepts favoured for further assessment.
- A continuing program be provided so that, with the assessments and comments received, the concepts may be further tested and adjusted as necessary.

In a dynamic region, timing is of the essence. If a regional plan is contemplated it should be proceeded with as soon as possible. The consequences of delay in setting the region on a sound course might be damaging and costly.



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5. GO Transit extends to Burlington and Hamilton also, but the number of daily trains to and from Hamilton does not exceed, initially, that provided by the discontinued CN service.
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- 22. **Soil Capability Classification**, op. cit.
- 23. Shaw, op. cit., pp. 76-77 and 97.
- 24. Some indication of the reality of the hypothetical service areas is suggested by the information, provided by the Yorkdale Shopping Centre management, that 52% of Yorkdale's customers originate within a radius of five miles.
- 25. — The rule-of-thumb used to determine the 5-mile range of influence was a 30-minute travel tolerance time and an average speed of 10 m.p.h.
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- 27. **The Economist**, (London: March, 1966).
- 28. **The Professional Engineer and Engineering Digest**, (Toronto: May, 1966), p. 73.
- 29. The subregional centre shown as Weston on Map 7 is symbolic only. The present location of intensive business activity at Weston Road and Lawrence Avenue West is confined by the Humber River Valley and major rail lines. A possible alternative would be the area near the future interchange of Richview Expressway and the Highway 400 extension. Detailed study of alternative sites is required. The success of the Guildwood Centre would depend on a grade separated access to the centre from the Scarborough Expressway near its future northward turn east of Morningside Avenue in Borough of Scarborough.
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Dept. of Energy and Resources Management, Ontario	36
Ontario Dept. of Tourism and Information	37-38



APPENDIX

MAPS

LEGEND

RESIDENTIAL

- High Density
- Medium-High Density
- Medium Density
- Low Density
- Seasonal

INDUSTRIAL

- Noxious
- Non-Noxious

COMMERCIAL

- Regional Centre
- Subregional Centre
- Major Commercial Centre
- Major Commercial Street

OPEN SPACE

- Space at Urban
- Landform Feature
- Major Recreational

TRANSPORTATION FACILITIES

- Airport, Rail Yard
- Railway
- Rapid Transit (Subway)
- Expressway
- Major Road



1964 LAND USE

LEGEND

consolidated municipal plans

RESIDENTIAL

- High Density
- Medium-High Density
- Medium Density
- Low Density
- Seasonal

OPEN SPACE

- Special Use
- Landform Feature
- Major Recreational

TRANSPORTATION FACILITIES

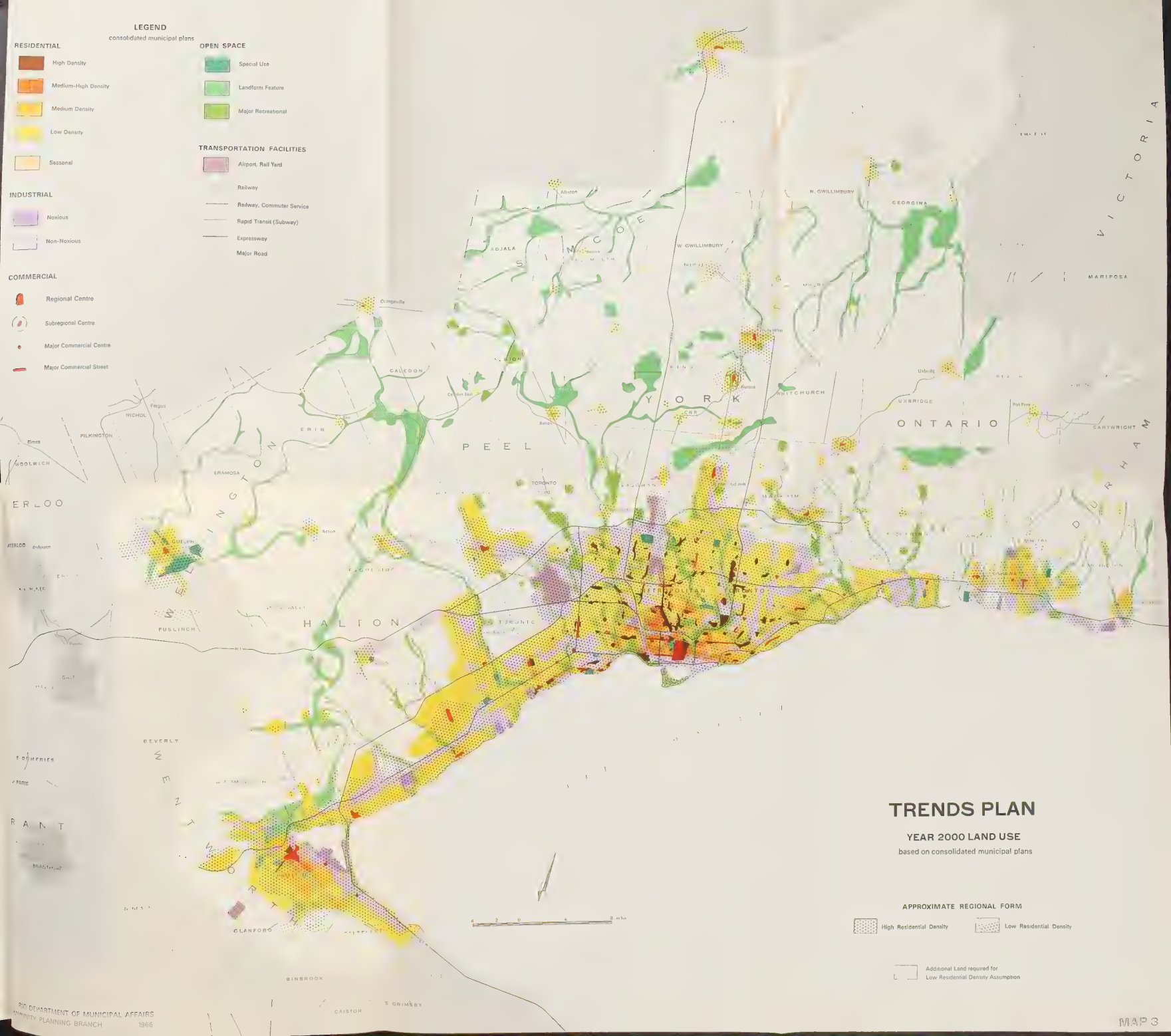
- Airport Rail Yard
- Railway
- Railway, Commuter Service
- Rapid Transit (Subway)
- Expressway
- Major Road

INDUSTRIAL

- Noxious
- Non-Noxious

COMMERCIAL

- Regional Centre
- Subregional Centre
- Major Commercial Centre
- Major Commercial Street



TRENDS PLAN

YEAR 2000 LAND USE

based on consolidated municipal plans

APPROXIMATE REGIONAL FORM

- High Residential Density
- Low Residential Density
- Additional Land required for Low Residential Density Assumption

2000 TRENDS PLAN
LOW RESIDENTIAL
DENSITY ASSUMPTION

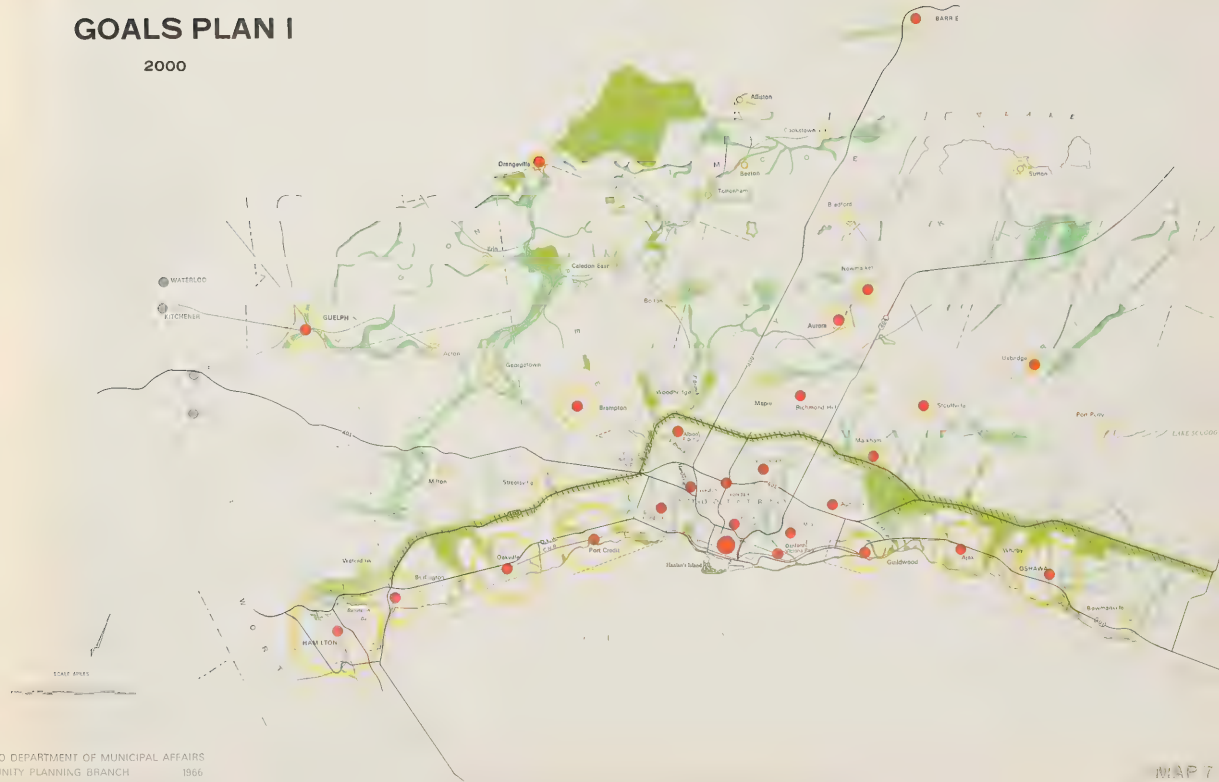
- ONTARIO DEPARTMENT OF MUNICIPAL AFFAIRS
COMMUNITY DEVELOPMENT

LEGEND



GOALS PLAN I

2000

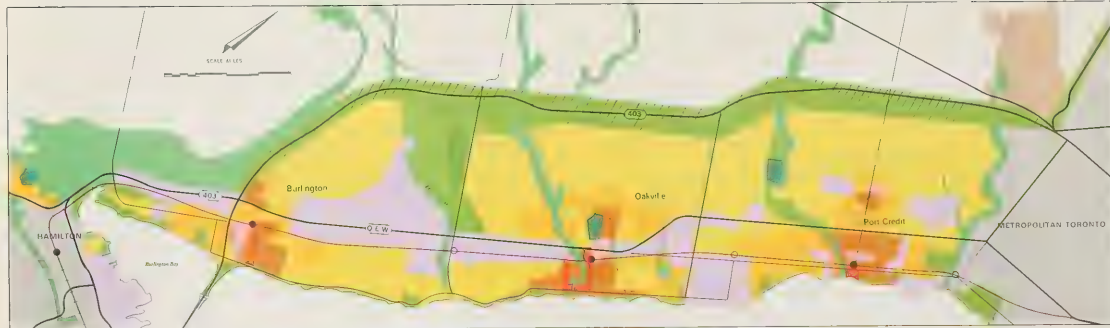


CORRIDOR CITIES

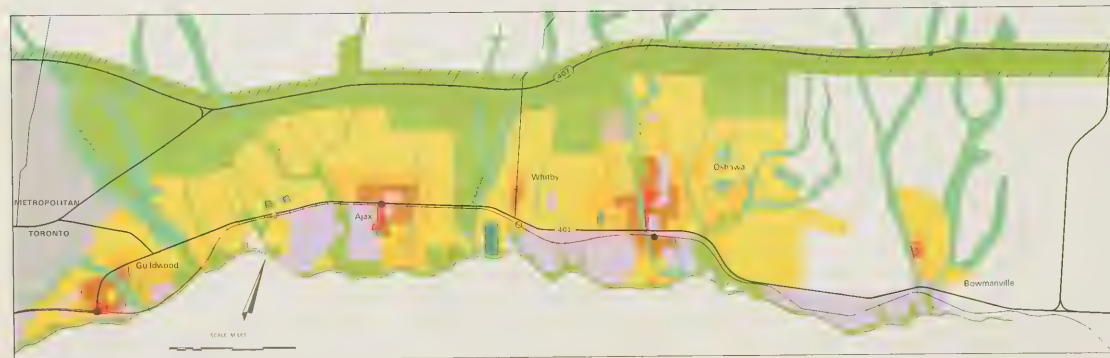
(as part of Goals Plan I)

LEGEND

- Subregional Centre
- Community Facilities
- Local Centre
- Residential**
- 60
- 35 Persons per gross acre
- 15
- Industrial
- Special Use
- Landform Feature
- Major Recreational Area
- Parkway Belt
- Airport, Rail Yard
- Railway, Commuter, High Speed
- Station (Express, Local)
- Railway
- Expressway
- Major Road

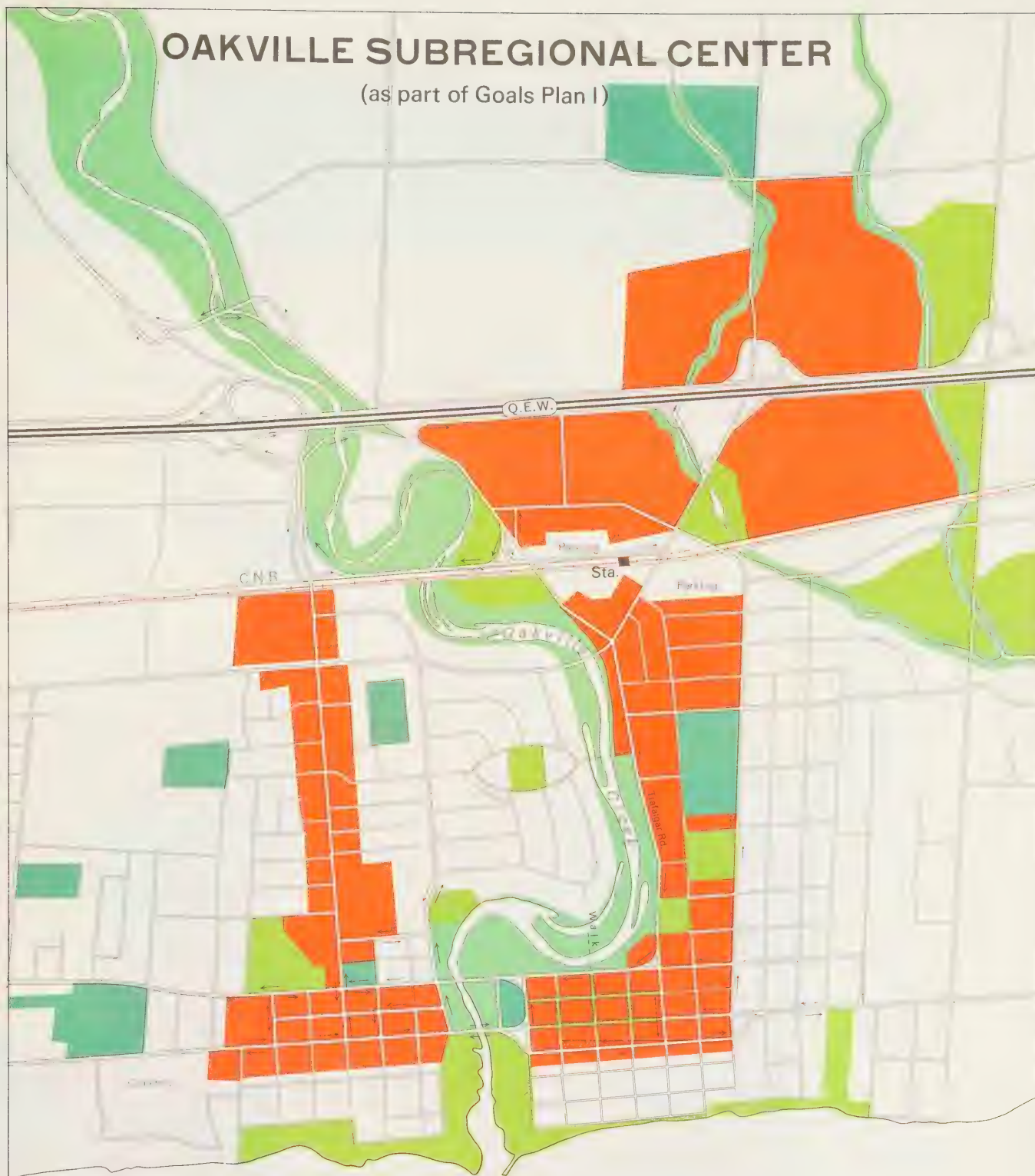


ONTARIO DEPARTMENT OF MUNICIPAL AFFAIRS
COMMUNITY PLANNING BRANCH 1966



OAKVILLE SUBREGIONAL CENTER










(as part of Goals Plan I)



L A K E O N T A R I O



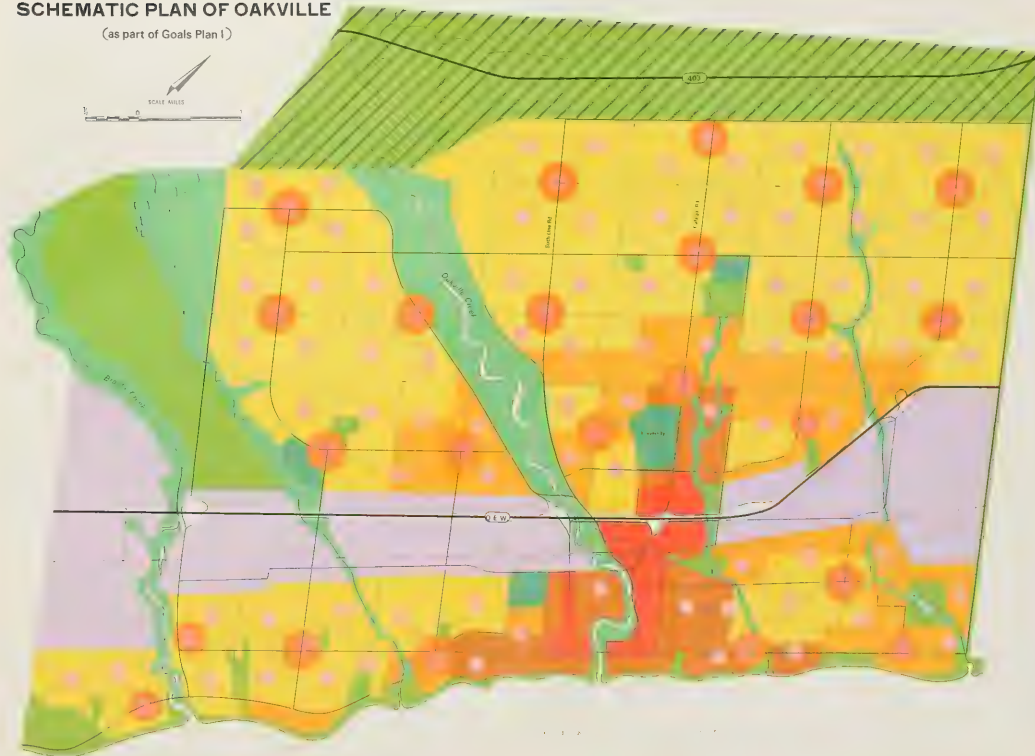
LEGEND
MAP 9

-  Subregional Centre
-  Special Use
-  Major Recreational
-  Public Park
-  Mall
-  Railway, Commuter - High Speed
-  Expressway
-  Major Road
-  Minor Road

Maps 9 and 10 are intended to demonstrate the manner in which a typical corridor city could be integrated with its subregional centre and with the region to express the Plan's goals and principles. Neither criticism nor suggestion for immediate change of the Oakville Official Plan is implied by the use of Oakville in this example.

SCHEMATIC PLAN OF OAKVILLE

(as part of Goals Plan I)



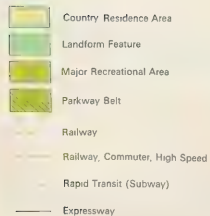
LEGEND
MAP 10

Residential

-  High Density
-  Medium Density
-  Low Density
-  Industrial
-  Subregional Centre
-  District Centre
-  Neighbourhood Centre

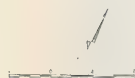
-  Special Use
-  Major Recreational
-  Public Park
-  Parkway Belt
-  Railway, Commuter - High Speed
-  Expressway
-  Major Road
-  Minor Road

LEGEND



GOALS PLAN II







2000














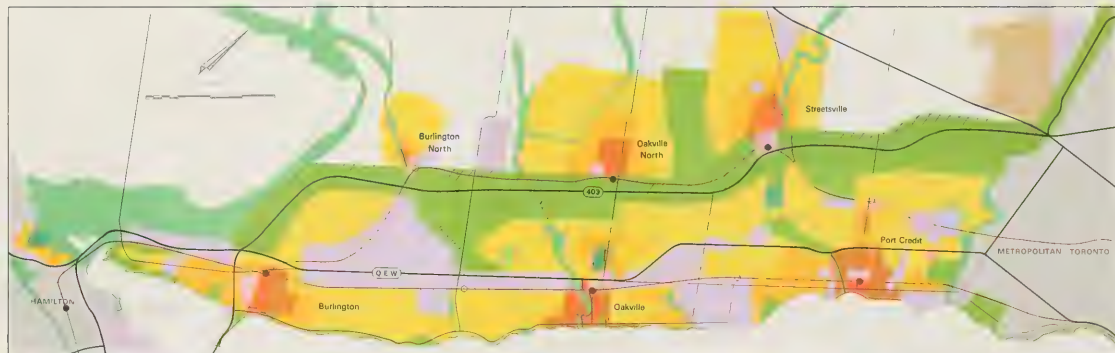
CORRIDOR CITIES

(as part of Goals Plan II)

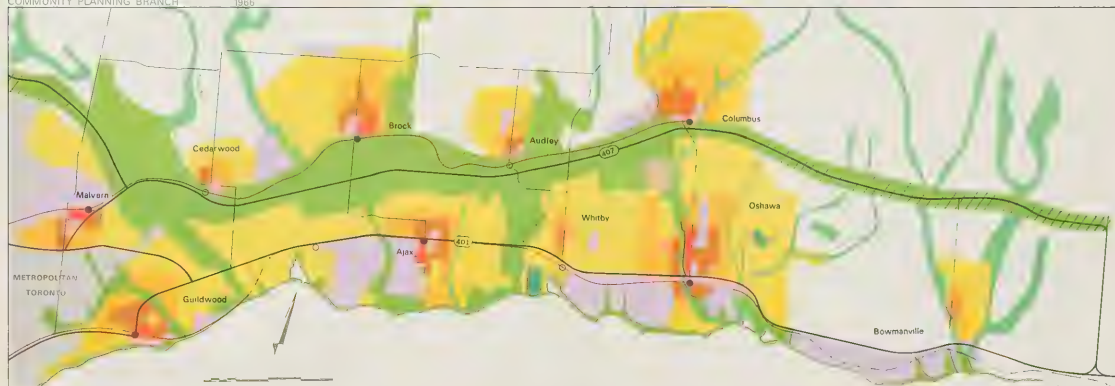
LEGEND

-  Subregional Centre
-  Local Centre
-  Community Facilities
- Residential
 -  60
 -  35
 -  15

Persons per gross acre
-  Industrial
-  Special Use
-  Landform Feature
-  Major Recreational Area
-  Parkway Belt
-  Airport, Rail Yard
-  Railway, Commuter, High Speed
-  Station (Express, Local)
-  Railway
-  Expressway
-  Major Road



ONTARIO DEPARTMENT OF MUNICIPAL AFFAIRS
COMMUNITY PLANNING BRANCH 1966



GOALS PLAN III

2000

LEGEND

- Regional Centre
- Subregional Centre
- Local Centre
- 10-50
- 50-100
- Population Range
in thousands
- Landform Feature
- Parkway Belt
- Railway
- Railway, Commuter, High Speed
- Rapid Transit (Subway)
- Expressway



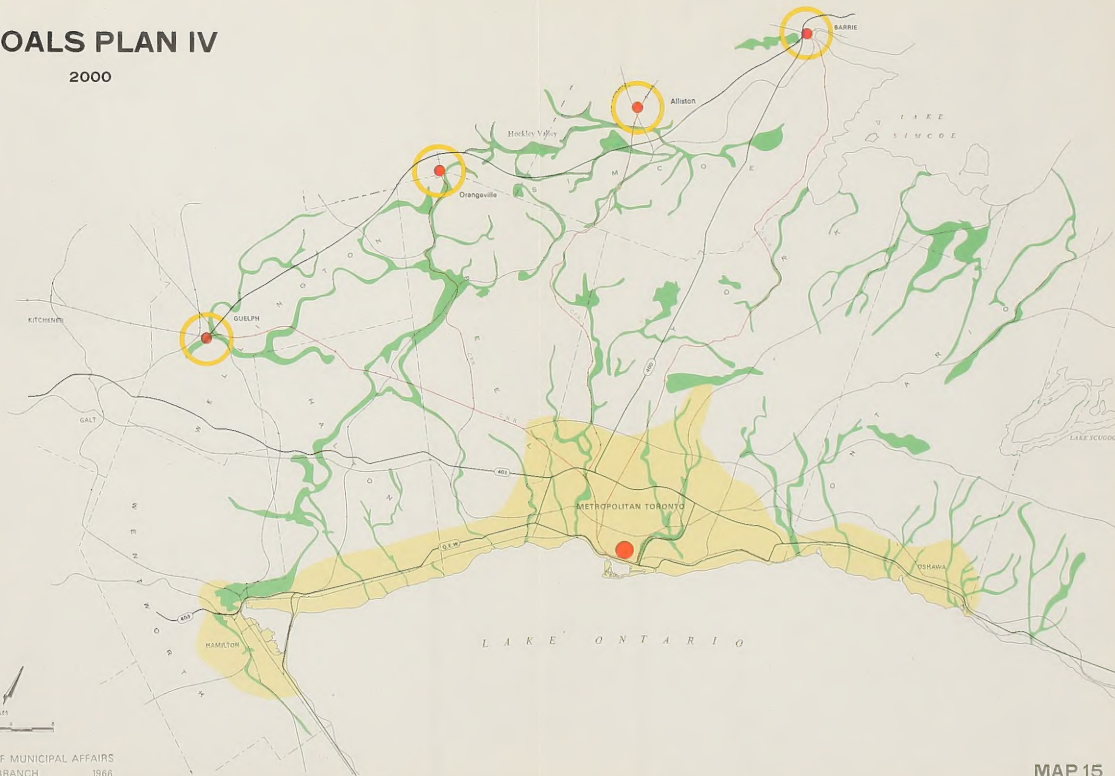


GOALS PLAN IV

2000

LEGEND

- Regional Centre
- Arc City
- Landform Feature
- Railway
- Railway (Improved Service)
- Expressway



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ONTARIO
PROVINCE OF OPPORTUNITY